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USAF BIOENVIRONMENTAL NOISE DATA HANDBOOK. VOLUME 64. B-52G AIR--ETC(U)
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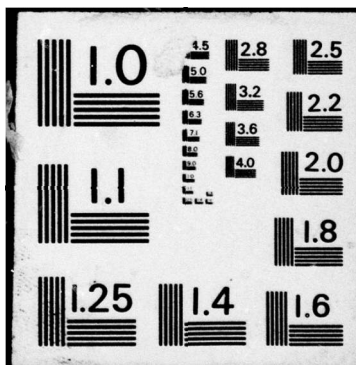
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AMRL-TR-75-50-VOL-64

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AD-A033 643

USAF BIOENVIRONMENTAL NOISE DATA HANDBOOK
VOLUME 64. B-52G AIRCRAFT,
NEAR AND FAR-FIELD NOISE

AEROSPACE MEDICAL RESEARCH LABORATORY,
WRIGHT-PATTERSON AIR FORCE BASE, OHIO

NOVEMBER 1975

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ADRL-TR-75-50
Volume 64



USAF BIOENVIRONMENTAL NOISE DATA HANDBOOK

Volume 64
B-52G AIRCRAFT, NEAR AND FAR-FIELD
NOISE

NOVEMBER 1975



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AEROSPACE MEDICAL RESEARCH LABORATORY
AEROSPACE MEDICAL DIVISION
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FOR THE COMMANDER

Henry E. von Gierke

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SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER AMRL-TR-75-50, Vol. 64	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) USAF BIOENVIRONMENTAL NOISE DATA HANDBOOK: B-52G Aircraft, Near and Far-Field Noise		5. TYPE OF REPORT & PERIOD COVERED Volume 64 of a series
		6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) Robert G. Powell		8. CONTRACT OR GRANT NUMBER(s)
9. PERFORMING ORGANIZATION NAME AND ADDRESS Aerospace Medical Research Laboratory Aerospace Medical Division, Air Force Systems Command, Wright-Patterson AFB, OH 45433		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS 62202F 7231-04-18
11. CONTROLLING OFFICE NAME AND ADDRESS Same as above		12. REPORT DATE November 1975
		13. NUMBER OF PAGES 133
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)		15. SECURITY CLASS. (of this report) Unclassified
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report) Approved for public release; distribution unlimited		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) Noise Noise Environments Bioenvironment Noise Aircraft B-52G Aircraft		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) The USAF B-52G aircraft is a strategic bomber powered by eight J57-P-43WA turbojet engines. This report provides measured and extrapolated data defining the bioacoustic environments produced by this aircraft operating on a concrete runup pad for five engine/power configurations. Near-field data are reported for eight locations in a wide variety of physical and psychoacoustic measures: overall and band sound pressure levels, C-weighted and A-weighted sound levels, preferred speech interference level, perceived noise level, and		

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limiting times for total daily exposure of personnel with and without standard Air Force ear protectors. Far-field data measured at 19 locations are normalized to standard meteorological conditions and extrapolated from 75-8000 meters to derive sets of equal-value contours for these same seven acoustic measures as functions of angle and distance from the source. Refer to Volume 1 of this handbook, "USAF Bioenvironmental Noise Data Handbook, Vol 1: Organization, Content and Application", AMRL-TR-75-50(1) 1975, for discussion of the objective and design of the handbook, the types of data presented, measurement procedures, instrumentation, data processing, definitions of quantities, symbols, equations, applications, limitations, etc.

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PREFACE

This report was prepared by the Biodynamic Environment Branch, Aerospace Medical Research Laboratory, under Project/Task 723104, Measurement of Noise and Vibration Environments of Air Force Operations.

The author gratefully acknowledges Mr. John Cole for his assistance in preparing this report, Mr. Robert England for his assistance in acquiring the raw data, Mr. Henry Mohlman and Mr. David Eilerman of the University of Dayton for assistance in the mechanics of data processing and Mrs. Norma Peachey and Mr. Mike Patterson for assistance in typing and preparation of the graphics.

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INTRODUCTION

The USAF B-52G Stratofortress is a strategic bomber-type aircraft powered by eight J57-P-43WA turbojet engines. The aircraft was manufactured by the Boeing Company and the engines by United Aircraft, Pratt and Whitney Division.

This volume provides measured and extrapolated data defining bioacoustic environments produced by this aircraft during ground runup operations. Such data are essential to evaluate ear protection requirements, limiting personnel exposure times, voice communication capabilities, and annoyance problems associated with ground runups of the B-52G aircraft.

This volume is one of a series published by the Aerospace Medical Research Laboratory (AMRL) under the same report number (AMRL-TR-75-50) as a multi-volume handbook that quantifies the noise environments produced at flight/ground crew locations and in surrounding communities by operations of Air Force aircraft and aerospace ground equipment. The far-field, community-type noise data in the handbook describe the noise produced during *ground operations* of aircraft, aerospace ground equipment, and other ground-based equipment or facilities.

Volume 1 of this handbook discusses the objectives and design of the handbook, the types of data presented, measurement procedures, instrumentation, data processing, definitions of quantities, symbols, equations, applications, limitations, etc. Volume 2 provides a method and data for adjusting the handbook's far-field noise data, which are for standard meteorological conditions (15°C temperature, 70% rel humidity, 0.760 meters Hg barometric pressure), to derive comparable data for other meteorological conditions. *Refer to Volumes 1 and 2* (references 1 and 2) for such information because it is not repeated in other handbook volumes.

A cumulative index lists those aerospace systems contained in the handbook, and identifies the specific volumes containing each type of environmental noise data available (i.e., inflight/flight crew and passenger noise, near-field/ground crew noise, far-field/community noise). Volume numbers are assigned sequentially as individual volumes are published. This index is periodically updated as individual volumes are published and is available upon request from AMRL/BBE, Wright-Patterson AFB, OH 45433. Organizations on the distribution list for the handbook will automatically receive a copy of each updated index.

Direct any questions concerning the technical data in this report and other handbook volumes to: AMRL/BBE, Wright-Patterson AFB, OH 45433; AUTOVON 78-53675 or 78-53664; Commercial (513) 255-3675 or (513) 255-3664.

1. Cole, John N., *USAF Bioenvironmental Noise Data Handbook Volume 1: Organization, Content and Application*, AMRL-TR-75-50 (1), Aerospace Medical Research Laboratory, Wright-Patterson Air Force Base, Ohio, 1975.
2. Cole, John N., *USAF Bioenvironmental Noise Data Handbook, Volume 2: Procedure to Evaluate Effects of Non-standard Meteorological Conditions on Far-Field Noise*, AMRL-TR-75-50 (2), AMRL, WPAFB, OH, 1975.

NEAR-FIELD NOISE

MEASUREMENTS

AMRL acquired near-field noise data on the B-52G aircraft during ground runup operations of its turbojet engines and aerospace ground equipment. For these tests the aircraft was located on a concrete runup pad at Edwards AFB with no significant reflecting surfaces in the vicinity except the ground plane. Table 1 gives the surface meteorological conditions and the four engine, aerospace ground equipment, and power conditions. The ground-crew chief selected power conditions and near-field locations generally used during routine maintenance or engine runup for preflight checks.

At each near-field location a test engineer randomly moved a hand held microphone in and around each location, probing all areas where a crew member's head would normally be located. He recorded all of the noise samples on magnetic tape. During analysis of each sample, he determined the root-mean-square sound pressure using a 4- or 8-second integration time to derive a power-averaged level for each location. Figure 1 shows the eight near-field locations where ground crews are usually located for maintenance and/or preflight checkout operations. Estimates of noise levels at other locations in the near-field are difficult since the noise source is spatially distributed, i.e., not a point source. The noise levels at near-field locations can vary widely depending upon relative distances from each noise source (intake noise, exhaust noise, panel resonances, internal engine noise through the engine wall, etc.).

Table 1 lists the numeric/alphabetic designators used on the data pages in this report to identify the measurement locations and test conditions. For example, the designator 1/A means ground crew location 1 and test condition A.

RESULTS

The measured data presented in Table 2 define the sound pressure levels (SPL) produced by the B-52G aircraft at the eight ground crew locations. This table includes the overall, 1/3 octave band, and octave band levels. From these data one can calculate the variety of measures given in Table 3, which are widely used to assess the effects of noise on personnel and their performance.

All near-field data are for the meteorological conditions at the time of test but are valid for all typical airbase meteorology because of the short sound propagation distances involved.

TABLE 1
MEASUREMENT LOCATIONS AND TEST CONDITIONS
FOR NEAR-FIELD NOISE MEASUREMENTS

B-52G Aircraft, Ground Runup, Edwards AFB, CA
14 September 1972
Tail #30399

Ground Crew Location

1	Operation MA-1A
2	Flow Check
3	Forward Hatch Check
4	FLG Wheel Chock
5	MD-3 Connector Removal
6	MD-3 Cable Gathering
7	Air Exhaust Check Engine #6
8	Rear LG Wheel Chock

Aircraft Engine (and AGE) Operation

A	Engine #4 Start, MA-1A and MD-3 Operating
B	Engine #4 at 90% RPM, Other Engines Idle Power, MD-3 Operating
C	All Engines Idle Power, MD-3 Operating
D	All Engines Idle Power

Meteorology

Temperature	15.6 C
Bar Pressure	.701 M Hg
Rel Humidity	39 %
Wind	Calm

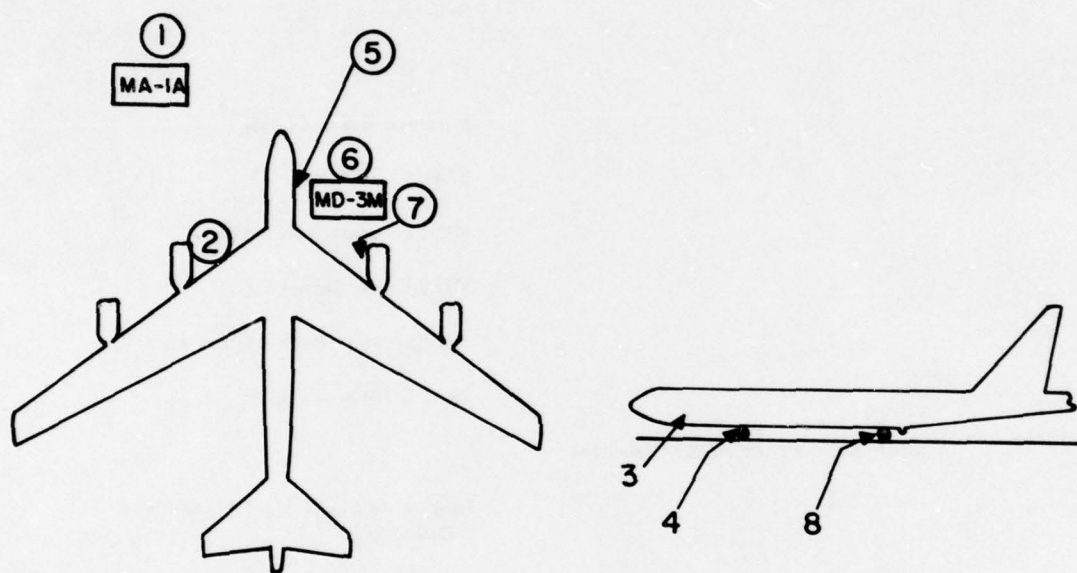


Figure 1. Near-Field Measurement Locations at Pad 15, Edwards AFB, CA

FAR-FIELD NOISE

MEASUREMENTS

AMRL acquired both near and far-field data during a 1- 2-hour test period, thus keeping similar meteorological conditions. Figure 2 shows the ground runup pad, ground cover, aircraft orientation and the 19 microphone measurement sites on a semicircle. The center of the 75 meter radius semicircle used in surveying the J57-P-43WA engines was on the ground directly below the intersection of the aircraft's centerline and the plane passing through both inboard engine pods' exhaust-nozzle exits.

Table 4 provides cockpit readouts of engine characteristics (% RPM, fuel flow, etc.) for each power setting used in the far-field tests. Also listed in this table are the surface meteorological conditions during data acquisition.

All microphone measurement sites are in the acoustic far-field of the source where the sound wave-fronts spherically diverge and the noise source may be regarded as a point source.

A portable microphone/tape-recorder system was used to sequentially record the noise at each far-field location. The microphone was attached to a hand held pole, pointed at the source (0° angle of incidence) and vertically scanned from 0.5 to 3 meters for a period of 5-10 seconds during data acquisition at each microphone location. These samples were then time-integrated to derive a root-mean-square sound pressure level. Vertical scanning and time-integrating together reduce anomalies frequently present in data acquired by a fixed height microphone.

RESULTS

Table 5 lists the overall and 1/3 octave band SPL measured at the far-field locations under meteorological conditions at the time of the test. Data in all other figures and tables are based on these levels. These data were normalized to 100 meters distance and standard meteorological conditions (15°C temperature, 70% relative humidity, 0.760 meter Hg barometric pressure) and used to derive the graphic data in Figure 3 which provides a compact summary of the far-field noise characteristics of the B-52G aircraft in a standard format.

Figure 4 and Table 6 present two basic acoustic measures, the acoustic power level and the directivity index, respectively. The acoustic power level describes the power radiated by the source as a function of frequency. The directivity index is a standard acoustical engineering measure that describes the geometric way in which the source radiates this power as a function of both frequency and angle from source. These basic source measures are primarily of interest for acoustical engineers and noise generation/control specialists.

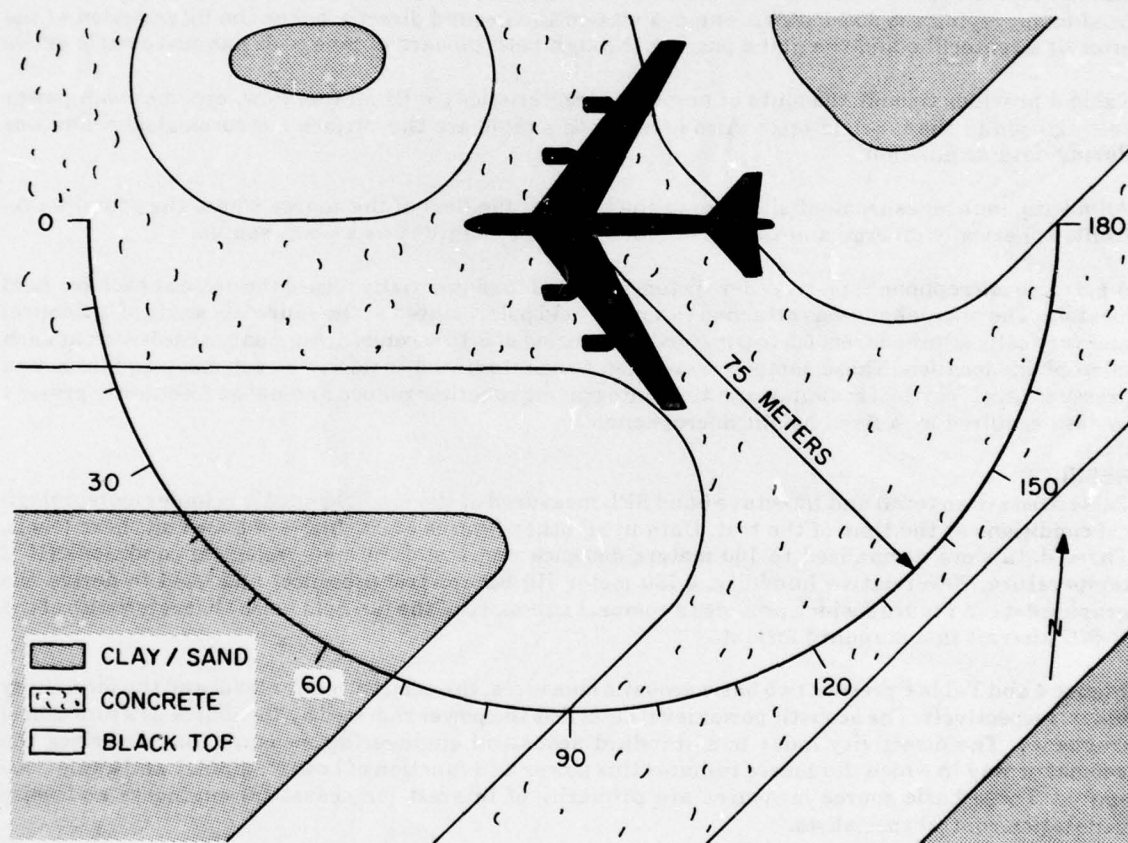


Figure 2. Far-Field Measurement Locations at Pad 15, Edwards AFB, CA

Figures 5 through 11 are sets of equal noise contours describing seven different measures of noise as a function of angle and distance from the source for standard day meteorology. They are respectively, overall sound pressure level, C-weighted sound level, A-weighted sound level, perceived noise level, speech interference level, permissible exposure times for personnel and octave band sound pressure levels.

No data are presented at the 170 and 180 degree locations for idle power and at the 160, 170 and 180 degree locations for the remaining power settings because of turbulent air flow behind the aircraft.

Test personnel performed noise surveys during quiet periods when the background noise was minimal, e.g., early in the morning when no other aircraft or engine test stands were operating.

Volume 2 of the handbook describes the influence of meteorology on far-field noise environments, and provides, if required, the factors necessary to adjust the handbook's standard meteorological day data.

TABLE: MEASURED SOUND PRESSURE LEVEL (DB)									
2 1/3 OCTAVE BAND									
NOISE SOURCE/SUBJECT: (OPERATION:)									
B-52G AIRCRAFT ()									
GROUND CREW ()									
NEAR FIELD NOISE LEVELS ()									
LOCATION/CONDITION									
FREQ (HZ)	1/A	2/B	3/C	4/C	5/C	6/C	7/D	8/D	
25	89	106	87	83	86	86	90	89	
31.5	83	110	88	88	90	87	91	84	
40	83	111	91	93	92	90	93	93	
50	87	111	94	95	96	99	96	97	
63	86	115	99	100	103	108	97	99	
80	84	118	91	98	94	95	93	97	
100	92	121	97	100	96	103	100	97	
125	96	123	105	97	100	110	100	100	
160	98	124	96	97	95	107	99	100	
200	97	126	94	94	93	103	99	96	
250	93	126	95	97	99	109	98	97	
315	96	125	96	98	101	109	100	100	
400	100	127	97	100	102	104	103	111	
500	94	126	96	100	100	102	103	101	
630	92	126	98	101	100	101	103	101	
800	90	125	97	100	99	100	102	102	
1000	87	125	105	104	108	107	111	103	
1250	87	124	110	107	111	108	111	104	
1600	87	123	104	101	104	104	105	101	
2000	92	124	103	102	103	103	105	101	
2500	91	122	104	103	103	103	102	103	
3150	94	121	105	105	106	105	109	107	
4000	96	119	104	106	107	106	111	111	
5000	100	120	100	100	101	100	103	103	
6300	103	119	97	103	100	98	102	106	
8000	113	122	99	111	104	101	105	114	
10000	112	120	94	100	98	96	104	103	
OVERALL	116	137	115	116	117	119	119	119	

LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

TABLE: MEASURED SOUND PRESSURE LEVEL (DB)										IDENTIFICATION:	
OCTAVE BAND											
2											
NOISE SOURCE/SUBJECT:											
(OPERATION:											
B-52G AIRCRAFT											
GROUND CREW											
NEAR FIELD NOISE LEVELS											

TABLE: MEASURES OF HUMAN NOISE EXPOSURE										IDENTIFICATION:
NOISE SOURCE/SUBJECT:	OPERATION:	1/A	2/B	3/C	4/C	5/C	6/C	7/D	8/D	
B-52G AIRCRAFT	(									OMEGA 3.2
GROUND CREW	(									TEST 72-045-002
NEAR FIELD NOISE LEVELS	(									RUN 01
										02 DEC 74
										PAGE H1
LOCATION/CONDITION										
HAZARD/PROTECTION										
C-WEIGHTED OVERALL SOUND LEVEL (OASLC IN DB) AT EAR										
A-WEIGHTED OVERALL SOUND LEVEL (OASLA IN DB) AT EAR										
MAXIMUM PERMISSIBLE TIME (T IN MINUTES) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)										
NO PROTECTION										
OASLC	113	137	115	115	117	118	118	118	118	
OASLA	115	135	115	116	117	116	119	118	118	
T	2.2	P	2.2	P	P	P	P	P	P	
MINIMUM QPL EAR MUFFS										
OASLA*	91	113	89	90	90	95	92	93	93	
T	143	3.2	202	170	170	71	120	101	101	
AMERICAN OPTICAL 1700 EAR MUFFS										
OASLA*	89	108	84	86	85	90	86	89	89	
T	202	8	480	339	404	170	339	202	202	
V-51R EAR PLUGS										
OASLA*	85	110	88	88	90	90	92	90	90	
T	404	5	240	240	170	170	120	170	170	
AMERICAN OPTICAL 1700 EAR MUFFS PLUS V-51R EAR PLUGS										
OASLA*	76	96	75	75	77	77	79	77	77	
T	960	60	960	960	960	960	960	960	960	
H-133 GROUND COMMUNICATION UNIT										
OASLA*	85	107	88	88	90	89	91	89	89	
T	404	9	240	240	170	202	143	202	202	
COMMUNICATION										
PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)										
PSIL	96	129	107	107	109	109	110	108	108	
ANNOYANCE										
PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PNDB)										
TONE CORRECTION (C IN DB)										
PNLT	128	148	130	131	132	132	135	135	135	
C	1	0	2	1	2	1	2	2	2	

TABLE 4
TEST CONDITIONS
FOR FAR-FIELD NOISE MEASUREMENTS

B-52G Aircraft, Ground Runups, Edwards AFB, CA
14 September 1972
Tail #30399

Aircraft Engine Operation

Idle	<p>All Engines EPR — Did Not Register 61 % RPM NC (Core Speed) 300 C EGT (Exhaust Gas Temperature) 1150 LBS/HR FF (Fuel Flow)</p>
Engine Start (All other engines idle)	<p>#4 Engine 2.04 EPR (Engine Pressure Ratio) 90 % RPM NC 520 C EGT 6200 LBS/HR FF</p>
80% Runup	<p>All Engines 1.35 EPR (Engine Pressure Ratio) 90 % RPM NC 520 C EGT 6200 LBS/HR FF</p>
80% Runup	<p>All Engines 1.35 EPR 80 % RPM NC 340 C EGT 2400 LBS/HR FF</p>
90% Runup	<p>All Engines 2.04 EPR 90 % RPM NC 500 C EGT 6000 LBS/HR FF</p>
Takeoff Rated Thrust	<p>All Engines 2.45 EPR 94 % RPM NC 580 C EGT 8000 LBS/HR FF</p>

Meteorology

Temperature	15.6 C
Bar Pressure	0.701 M Hg
Rel Humidity	39 %
Wind	Calm

TABLE: MEASURED SOUND PRESSURE LEVEL (DB)																
1/3 OCTAVE BAND																
DISTANCE = 75 METERS																
NOISE SOURCE/SUBJECT:																
(OPERATION:																
(IDLE POWER																
(61% RPM																
(ALL ENGINES																
(FREE FLOW																
FREQ																
(HZ)																
ANGLE (DEGREES)																
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180																
25	68	67<	68	67<	66<	68<	69	71	73	72	73	75	76	75	75	74
31.5	70	70	71	70	71	71	72	73	74	74	75	76	78	79	78	74
40	72	71<	73	73	73	71<	72	73	74	75	77	77	78	79	80	74
50	79	78	77	77	78	77	77	78	79	78	79	79	80	82	81	77
63	76<	76<	76<	75<	76<	76<	75<	77<	79	78	79	80	81	82	81	77<
80	75<	74<	74<	75<	74<	74<	74<	76<	77<	77<	78<	79<	81	81	79<	77<
100	77<	78<	78<	78<	77<	78<	79<	80	80<	80	82	83	84	83	81	77<
125	75<	76<	76<	77<	75<	76<	76<	78<	78<	79<	78<	81<	83	83	80<	76<
160	78<	79<	78<	79<	76<	77<	78<	80<	80<	79<	79<	80<	84	83	80<	75<
200	78	79	79	79	77	77	77	79	80	80	80	81	82	82	79	73<
250	79	79	79	80	79	78<	79	80	81	82	82	82	83	81	82	78<
315	80	81	82	81	80	80	80	81	81	81	82	82	84	83	81	79
400	85	85	84	84	83	82	82	83	85	87	85	85	86	84	81	79
500	85	85	85	84	82	81	80	82	83	83	83	84	82	80	78	74
630	86	86	86	85	84	82	81	81	83	83	82	83	82	79	77	74
800	88	87	88	87	85	83	81	81	81	81	81	81	80	79	77	74
1000	92	91	91	91	90	87	87	90	88	86	85	84	82	82	80	77
1250	95	94	96	95	93	88	89	91	88	86	86	86	86	84	81	77
1600	90	90	91	91	92	89	89	87	83	80	81	81	82	81	79	74
2000	96	95	95	93	92	90	90	88	85	81	82	81	82	80	79	72
2500	93	92	91	89	88	87	86	85	82	78	79	79	80	78	77	71
3150	91	91	91	91	91	90	91	91	87	86	89	90	88	83	79	75
4000	88	88	88	87	87	85	86	85	87	87	91	94	93	90	86	83
5000	85	85	85	84	83	80	79	79	76	75	78	80	79	76	74	72
6300	80	80	80	79	79	77	77	77	75	75	79	79	76	74	71	67
8000	76	76	76	76	76	76	76	76	76	77	79	80	82	78	77	71
10000	68	68	67	66	66	65	66	65	64	67	71	73	72	68	64	56
OVERALL	102	101	102	101	100	98	98	98	97	96	97	98	98	97	95	89

< LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

TABLE: MEASURED SOUND PRESSURE LEVEL (DB)																			
1/3 OCTAVE BAND																			
DISTANCE = 75 METERS																			
NOISE SOURCE/SUBJECT:																			
OPERATION:																			
90% RPM ENGINE NO. 4																			
IDLE POWER																			
61% RPM ALL OTHER ENGINES																			
FREE FLOW																			
METEOROLOGY:																			
TEMP = 16 C																			
BAR PRESS = .701 M HG																			
REL HUMID = 39 %																			
IDENTIFICATION:																			
OMEGA 1.4																			
TEST 75-002-010																			
RUN 02																			
15 APR 75																			
PAGE 2																			
ANGLE (DEGREES)																			
FREQ (HZ)	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
25	79	80	82	81	78	82	85	84	86	85	84	85	89	92	95	95	93		
31.5	83	81	82	80	83	84	84	84	86	87	89	90	91	96	99	99	98		
40	83	83	81	85	85	84	88	88	90	89	92	91	95	99	103	100			
50	85	84	86	87	88	89	91	91	91	92	93	96	99	105	105	101			
63	87	88	89	90	92	94	94	95	96	95	95	98	102	109	110	104			
80	89	88	91	91	91	94	95	96	98	98	98	100	104	109	112	107			
100	91	92	94	94	94	96	97	98	99	99	102	103	106	111	114	108			
125	93	92	94	95	97	97	99	100	102	101	103	107	108	112	112	106			
160	95	96	97	99	99	99	100	100	102	102	103	108	108	111	109	105			
200	96	96	97	98	98	98	101	101	102	103	105	107	108	109	109	103			
250	96	96	96	98	99	99	101	101	103	102	104	108	108	108	107	105			
315	94	94	95	96	98	99	99	101	101	102	102	106	109	105	105	103			
400	95	96	97	98	99	99	100	101	103	103	105	107	109	108	107	105			
500	95	96	96	97	98	100	100	101	103	104	105	107	108	108	106	103			
630	94	96	96	97	98	98	99	101	102	103	105	107	108	107	106	101			
800	94	95	95	96	96	98	97	99	100	102	103	106	106	104	103	99			
1000	93	96	95	96	97	97	97	99	99	101	102	104	105	102	101	96			
1250	95	96	95	96	96	96	96	97	98	100	101	104	103	100	99	95			
1600	91	93	94	95	95	95	96	97	97	100	100	102	101	99	97	93			
2000	96	96	96	97	97	97	98	98	98	101	101	102	101	99	97	93			
2500	97	97	97	101	98	98	97	97	97	98	98	99	97	96	94	90			
3150	92	93	94	95	95	94	95	96	96	97	96	98	97	95	93	88			
4000	89	90	90	91	91	91	91	93	94	95	96	97	96	94	92	88			
5000	89	89	90	90	90	90	90	91	91	92	92	92	91	90	88	84			
6300	84	84	85	85	86	86	86	87	88	89	88	89	88	87	85	81			
8000	81	83	82	83	83	84	84	85	87	88	87	87	87	85	82	78			
10000	74	75	75	76	76	77	76	78	79	81	81	81	81	79	76	71			
OVERALL	107	107	108	109	110	110	111	112	113	114	115	118	119	120	120	116			
LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.																			

LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

TABLE: MEASURED SOUND PRESSURE LEVEL (DB)																
1/3 OCTAVE BAND																
DISTANCE = 75 METERS																
NOISE SOURCE/SUBJECT:																
(OPERATION:)																
(80% RPM)																
(ALL ENGINES)																
(FREE FLOW)																
METEOROLOGY: = 16 C																
TEMP																
BAR PRESS = .701 M HG																
REL HUMID = 39 %																
PAGE 2																
IDENTIFICATION:																
OMEGA 1.4																
TEST 75-002-010																
RUN 03																
15 APR 75																
FREQ (HZ)																
ANGLE (DEGREES)																
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180																
25	76	75	77	77	77	78	79	80	80	82	80	82	84	87	92	91
31.5	80	79	77	78	79	79	80	80	81	82	84	87	86	91	94	94
40	81	81	80	80	81	81	83	83	85	86	87	88	91	94	98	97
50	83	83	83	84	83	84	85	86	87	88	90	92	94	98	101	98
63	85	85	85	86	86	87	87	88	90	91	91	93	97	100	103	100
80	87	86	87	87	87	88	89	91	92	92	94	95	99	102	105	99
100	88	88	89	89	89	90	92	93	94	95	97	99	101	104	105	101
125	90	90	90	89	89	91	92	94	95	96	97	99	100	106	104	99
160	90	91	91	90	90	90	92	94	95	97	98	99	101	105	104	97
200	90	90	90	89	90	90	91	93	94	95	98	99	101	102	102	94
250	91	91	91	91	90	92	91	94	94	96	97	100	101	101	101	93
315	90	90	90	91	90	90	92	94	94	95	95	98	100	100	98	91
400	91	92	92	92	91	91	92	95	95	97	98	100	101	99	96	90
500	92	92	92	92	91	90	91	95	95	96	96	100	99	98	95	89
630	93	93	93	92	92	91	90	94	93	94	95	98	99	95	93	88
800	93	92	92	92	92	90	89	93	92	92	93	96	97	93	91	85
1000	93	92	92	91	91	90	89	92	91	91	92	95	96	92	89	84
1250	97	97	99	97	97	93	91	92	91	91	92	94	95	92	89	81
1600	98	97	98	98	97	96	95	93	92	91	91	93	94	90	87	80
2000	104	104	106	107	108	107	104	102	101	98	96	95	96	93	89	80
2500	97	97	96	96	97	94	94	93	92	90	90	90	91	89	84	76
3150	97	95	96	96	95	94	94	93	92	90	89	90	90	89	84	75
4000	101	101	100	101	101	100	100	101	98	95	92	92	91	88	84	74
5000	95	95	94	95	94	93	93	93	92	92	90	89	88	86	82	73
6300	93	93	93	93	93	92	92	93	94	98	97	97	96	91	86	75
8000	89	89	89	89	89	87	88	87	86	88	88	90	91	86	83	73
10000	82	82	81	82	82	81	80	80	79	81	80	80	80	77	73	63
OVERALL	109	109	109	110	110	109	108	108	108	108	106	110	111	113	113	108

LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

TABLE: MEASURED SOUND PRESSURE LEVEL (DB)																
1/3 OCTAVE BAND																
DISTANCE = 75 METERS																
NOISE SOURCE/SUBJECT: (OPERATION:) METEOROLOGY:) IDENTIFICATION:																
8-52G AIRCRAFT (90% RPM) TEMP = 16 C) OMEGA 1.4																
J57-43N ENGINE (ALL ENGINES) BAR PRESS = .701 M HG) TEST 75-002-010																
FAR FIELD NOISE (FREE FLOW) REL HUMID = 39 %) RUN 04																
FREQ (HZ) 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180																
25	86	84	86	86	83	86	90	89	90	93	93	94	96	102	103	102
31.5	88	88	88	88	87	89	90	91	92	93	95	97	100	104	108	105
40	89	89	90	89	90	91	93	94	95	96	96	99	102	107	110	105
50	91	91	91	93	92	93	95	96	96	97	100	102	106	110	113	105
63	95	94	95	95	97	98	99	99	100	101	102	106	111	114	116	105
80	96	96	96	96	96	99	99	101	102	103	105	105	111	116	116	106
100	98	99	99	99	99	101	102	104	106	106	109	114	114	118	117	106
125	101	102	102	100	102	102	103	106	107	109	112	113	114	118	122	117
160	104	103	103	104	103	104	105	107	109	112	113	114	119	125	119	106
200	106	104	105	104	104	104	105	107	108	111	115	116	119	122	122	103
250	105	105	105	105	105	105	105	107	108	111	115	116	119	122	122	103
315	103	103	104	104	104	104	105	107	108	110	112	114	118	119	119	103
400	104	105	104	105	105	105	106	108	108	110	113	116	120	121	119	104
500	104	104	103	104	104	105	105	106	108	111	113	114	116	118	117	104
630	104	104	103	104	104	104	104	106	107	109	112	114	116	117	117	103
800	103	103	103	103	103	103	102	105	106	108	109	112	114	114	114	100
1000	101	102	102	102	102	102	102	105	106	108	109	111	113	111	111	98
1250	100	101	101	101	101	101	102	104	105	106	108	111	112	111	109	94
1600	99	99	100	99	100	99	101	103	105	105	107	109	111	110	107	92
2000	101	101	102	101	102	101	102	104	105	106	108	110	111	110	106	92
2500	106	106	106	107	106	103	104	105	104	103	105	107	109	107	104	88
3150	99	100	99	100	99	98	99	101	101	102	103	106	107	106	102	87
4000	95	96	95	96	95	96	96	99	100	101	102	104	105	105	101	85
5000	97	97	97	97	96	96	96	97	97	99	100	102	103	102	99	82
6300	91	92	91	92	91	91	92	94	95	96	97	99	101	99	96	80
8000	89	89	89	90	89	89	89	91	92	95	97	98	99	97	95	78
10000	82	82	83	83	82	82	82	85	86	88	92	94	94	93	90	73
OVERALL	115	115	115	115	115	115	116	118	119	121	123	125	128	132	129	116

LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

TABLE: MEASURED SOUND PRESSURE LEVEL (DB)																
1/3 OCTAVE BAND																
DISTANCE = 75 METERS																
NOISE SOURCE/SUBJECT:																
OPERATION: MILITARY POWER																
8-52G AIRCRAFT																
J57-43M ENGINE																
FAR FIELD NOISE																
FREE FLOW																
FREQ (HZ)																
ANGLE (DEGREES)																
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180																
25	88	88	89	89	88	92	92	94	96	95	98	102	104	103		
31.5	91	89	90	90	92	93	93	96	96	98	100	102	105	107	106	
40	92	92	92	94	94	95	97	97	98	99	103	106	109	111	106	
50	95	95	94	95	96	95	98	99	99	101	103	105	110	113	114	107
63	97	98	98	99	98	100	103	104	105	103	105	108	113	117	116	110
80	98	100	99	101	101	104	105	107	111	113	114	116	119	118	109	
100	101	102	102	102	103	104	106	108	109	111	111	118	121	118	109	
125	104	105	104	103	104	105	107	111	113	114	116	121	124	118	109	
160	107	107	107	107	107	109	110	112	116	116	118	122	128	120	113	
200	109	107	108	108	108	110	110	113	116	117	118	122	127	122	112	
250	108	109	108	109	108	110	112	112	116	119	120	123	125	124	113	
315	107	108	108	108	108	109	112	113	114	116	119	122	122	120	111	
400	109	109	108	109	109	110	111	112	114	117	119	123	125	122	112	
500	114	114	113	113	112	111	111	112	114	118	119	121	123	120	111	
630	113	114	113	113	113	111	112	112	113	114	116	119	121	119	111	
800	111	111	111	112	112	111	111	113	112	113	115	117	118	119	116	108
1000	108	109	109	109	110	109	110	112	112	113	116	117	117	114	105	
1250	106	107	107	107	108	108	108	111	111	112	113	116	116	115	112	101
1600	104	105	106	105	106	105	107	109	110	111	112	115	115	114	111	99
2000	105	105	106	106	106	106	107	110	111	112	113	115	115	114	111	98
2500	104	105	105	105	105	105	106	107	108	109	110	112	113	111	108	95
3150	102	103	103	103	103	104	106	107	108	109	112	112	110	106	94	
4000	98	99	99	99	100	101	104	105	106	108	110	110	109	105	92	
5000	96	96	97	97	97	98	100	102	103	105	107	107	106	102	90	
6300	92	93	93	94	94	95	98	99	100	102	103	105	105	104	100	87
8000	88	89	89	90	91	92	95	96	98	100	103	103	102	98	85	
10000	82	83	83	84	85	86	89	91	93	96	99	100	98	93	80	
OVERALL	120	121	121	121	120	121	123	124	125	127	129	132	135	131	122	

LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

40

[illegible]

TABLE: DIRECTIVITY INDEX (DB)																	IDENTIFICATION:
6																	OMEGA 1.4
NOISE SOURCE/SUBJECT:																	TEST 75-002-010
(OPERATION:)																	RUN 02
(90% RPM ENGINE NO. 4)																	
(IDLE POWER)																	16 C
(61% RPM ALL OTHER ENGINES)																	BAR PRESS = .701 M HG
(FREE FLOW)																	REL HUMID = 39 %
FREQ																	PAGE 4
(HZ)																	
ANGLE (DEGREES)																	
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180																	
1/3 OCTAVE																	
25	-9	-8	-6	-7	-10	-6	-3	-4	-2	-3	-4	-3	-2	-1	4	7	5
31.5	-8	-10	-9	-11	-8	-7	-7	-7	-5	-5	-5	-5	-3	-0	4	8	7
40	-11	-11	-13	-9	-10	-10	-7	-6	-5	-5	-5	-5	-3	0	4	9	6
50	-12	-14	-12	-10	-10	-8	-6	-7	-7	-6	-6	-6	-5	1	7	7	3
63	-15	-14	-12	-12	-10	-8	-8	-7	-6	-7	-6	-7	-4	0	7	8	3
80	-14	-15	-12	-12	-10	-9	-8	-8	-6	-6	-6	-6	-3	1	6	9	4
100	-14	-13	-11	-11	-11	-9	-8	-7	-6	-6	-6	-6	-2	1	6	9	3
125	-12	-13	-12	-11	-9	-8	-7	-6	-4	-4	-4	-4	-2	3	6	6	1
160	-10	-10	-9	-6	-6	-7	-5	-5	-4	-3	-3	-3	-2	3	6	4	-0
200	-8	-8	-7	-6	-6	-7	-3	-3	-3	-2	-2	-2	-0	3	5	4	-1
250	-8	-8	-8	-7	-6	-6	-4	-4	-2	-2	-2	-2	-0	4	4	3	-1
315	-9	-9	-8	-7	-5	-4	-4	-3	-2	-1	-1	-1	-2	6	2	1	0
400	-9	-8	-8	-7	-5	-5	-4	-3	-2	-1	-1	-1	-2	4	3	3	1
500	-9	-8	-8	-7	-6	-4	-4	-3	-1	0	1	1	-1	3	3	2	-2
630	-9	-8	-8	-6	-6	-5	-4	-3	-1	-1	-1	-1	1	5	3	2	-3
800	-8	-7	-7	-6	-5	-4	-3	-2	-2	-0	1	1	1	4	4	2	-3
1000	-7	-5	-6	-4	-4	-4	-3	-2	-2	-1	1	1	2	4	4	1	-0
1250	-5	-3	-4	-3	-3	-2	-2	-1	-1	-1	1	1	2	4	3	1	-5
1600	-8	-5	-4	-4	-3	-3	-2	-1	-1	-1	1	1	2	3	3	1	-1
2000	-3	-3	-3	-2	-2	-2	-1	-1	-1	-1	1	1	2	3	2	0	-6
2500	-1	-1	-0	3	0	1	-0	-0	1	1	1	1	1	2	1	-1	-7
3150	-3	-3	-2	-1	-1	-1	-0	1	0	1	1	1	2	1	-0	-2	-7
4000	-5	-4	-4	-3	-3	-2	-1	0	1	2	2	2	3	2	1	-2	-6
5000	-1	-2	-1	-0	-0	-0	-1	0	1	1	2	1	2	1	-0	-2	-6
6300	-3	-3	-2	-2	-1	-1	-1	0	1	2	2	1	2	1	0	-2	-6
8000	-4	-3	-3	-2	-2	-2	-2	-0	1	3	2	2	2	2	-0	-3	-8
10000	-5	-4	-4	-3	-3	-2	-2	-1	0	2	2	2	2	2	0	-2	-7
OCTAVE																	
31.5	-10	-10	-10	-9	-9	-9	-6	-6	-4	-5	-3	-3	-3	0	4	8	6
63	-14	-15	-12	-12	-11	-9	-8	-7	-6	-6	-6	-6	-6	1	6	8	3
125	-12	-12	-10	-8	-8	-8	-7	-6	-4	-4	-4	-4	-4	2	6	7	1
250	-9	-8	-8	-7	-6	-6	-3	-3	-2	-2	-2	-2	-2	4	4	3	-0
500	-9	-8	-8	-7	-6	-5	-4	-3	-1	-1	-1	-1	-1	4	4	2	-1
1000	-7	-5	-6	-5	-4	-4	-4	-2	-2	0	2	2	4	4	1	1	-4
2000	-3	-3	-2	-0	-1	-1	-1	-1	-1	1	1	1	2	2	0	-2	-6
4000	-3	-3	-2	-1	-1	-1	-1	0	0	1	1	1	2	2	0	-2	-7
8000	-4	-3	-3	-2	-2	-1	-1	0	1	2	2	2	2	1	0	-3	-7
OVERALL																	0

TABLE: DIRECTIVITY INDEX (DB)																			
6																			
IDENTIFICATION:																			
OMEGA 1.4																			
TEST 75-002-010																			
RUN 03																			
METEOROLOGY:																			
TEMP = 16 C																			
BAR PRESS = .701 M HG																			
REL HUMID = 39 %																			
PAGE 4																			
NOISE SOURCE/SUBJECT: (OPERATION:)																			
B-52G AIRCRAFT (80% RPM)																			
J57-43M ENGINE (ALL ENGINES)																			
FAR FIELD NOISE (FREE FLOW)																			
FREQ (HZ)	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
1/3 OCTAVE																			
25	-8	-9	-10	-8	-8	-6	-5	-4	-3	-3	-4	-2	-1	3	8	7	7	7	7
31.5	-7	-8	-10	-9	-8	-8	-7	-7	-6	-5	-3	-0	-1	4	4	7	7	7	7
40	-10	-9	-10	-10	-10	-10	-7	-7	-6	-5	-3	-2	0	4	8	8	8	8	8
50	-10	-10	-10	-9	-10	-9	-8	-7	-6	-5	-3	-1	1	5	8	5	5	5	5
63	-10	-10	-10	-10	-9	-8	-8	-7	-5	-5	-3	-2	2	5	8	5	5	5	5
80	-10	-11	-10	-10	-9	-9	-8	-6	-5	-5	-3	-1	2	5	8	3	3	2	2
100	-11	-11	-9	-10	-9	-8	-7	-6	-4	-3	-1	1	2	6	7	6	1	1	1
125	-9	-8	-8	-9	-9	-8	-7	-5	-3	-3	-1	0	2	7	6	5	-1	-3	-3
160	-8	-8	-8	-9	-8	-8	-6	-4	-3	-2	1	1	3	6	5	5	-3	-4	-4
200	-7	-7	-7	-7	-8	-7	-6	-4	-3	-2	1	2	4	4	4	2	-1	-6	-6
250	-6	-6	-6	-6	-7	-5	-6	-4	-3	-1	0	3	4	4	4	2	-0	-6	-6
315	-5	-6	-5	-5	-6	-6	-4	-2	-1	-1	2	3	5	4	3	2	-1	-6	-6
400	-5	-4	-5	-5	-6	-6	-5	-2	-2	0	2	3	4	4	4	2	-0	-6	-6
500	-4	-4	-3	-4	-4	-5	-5	-1	-0	0	0	4	4	4	1	1	-1	-6	-6
630	-1	-1	-2	-2	-3	-3	-4	-0	-1	-1	1	4	4	4	0	0	-1	-8	-8
800	0	-1	-0	-1	-1	-3	-4	-0	-1	-1	1	4	4	4	0	0	-1	-8	-8
1000	1	0	0	-1	-1	-3	-3	-0	-1	-1	0	3	4	4	0	0	-1	-8	-8
1250	4	3	5	4	4	3	-2	-1	-3	-2	2	1	2	1	1	1	-3	-12	-12
1600	4	4	4	4	4	4	2	1	-0	-2	-2	-1	2	-1	-3	-7	-14	-14	-14
2000	2	2	4	4	5	6	2	2	-0	-4	-6	-7	-6	-9	-13	-22	-22	-22	-22
2500	4	4	4	4	4	2	2	1	1	-2	-2	-2	-2	-3	-8	-16	-16	-16	-16
3150	5	3	4	4	4	2	2	4	1	-3	-5	-6	-6	-9	-13	-23	-23	-23	-23
4000	4	4	3	4	4	2	2	4	1	-3	-5	-6	-6	-9	-13	-23	-23	-23	-23
5000	4	4	3	3	3	2	2	2	1	1	-1	-2	-3	-6	-9	-19	-19	-19	-19
6300	-1	-2	-1	-1	-1	-2	-3	-2	-0	4	3	2	2	-4	-8	-19	-19	-19	-19
8000	1	1	1	2	1	-0	0	-0	-2	0	0	3	3	-1	-5	-14	-14	-14	-14
10000	2	2	1	2	2	1	0	0	-1	1	0	0	0	-3	-7	-17	-17	-17	-17
OCTAVE																			
31.5	-9	-9	-10	-9	-9	-8	-7	-6	-5	-4	-3	-2	0	4	8	7	7	7	7
63	-10	-11	-10	-10	-9	-9	-8	-6	-5	-4	-3	-2	2	5	8	4	4	4	4
125	-9	-9	-8	-9	-9	-8	-7	-5	-4	-3	-1	1	2	6	6	1	1	1	1
250	-6	-6	-6	-6	-7	-6	-5	-3	-3	-1	0	3	4	4	4	-4	-4	-4	-4
500	-3	-3	-3	-4	-4	-5	-5	-1	-1	0	1	4	4	2	-1	-6	-6	-6	-6
1000	2	2	3	2	1	-2	-3	-1	-1	-1	-0	-5	-4	-0	-3	-9	-9	-9	-9
2000	2	3	4	5	5	4	2	-0	-1	-4	-5	-4	-5	-7	-11	-19	-19	-19	-19
4000	4	4	3	4	4	2	2	3	0	-2	-4	-4	-5	-7	-11	-21	-21	-21	-21
8000	-0	-1	-1	-0	-1	-2	-2	-1	-1	-2	2	2	2	-3	-7	-10	-10	-10	-10
OVERALL	-1	-1	-0	0	1	-0	-2	-1	-2	-2	-1	1	2	3	3	3	-1	-1	-1

[illegible]

TABLE: DIRECTIVITY INDEX (DB)										IDENTIFICATION:									
NOISE SOURCE/SUBJECT:										METEROLOGY:									
(OPERATION:)										()									
(MILITARY POWER)										()									
(94% RPM)										()									
(ALL ENGINES)										()									
(FREE FLOW)										()									
FREQ (HZ)										ANGLE (DEGREES)									
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180																			
1/3 OCTAVE																			
25																			
31.5																			
40																			
50																			
63																			
80																			
100																			
125																			
160																			
200																			
250																			
315																			
400																			
500																			
630																			
800																			
1000																			
1250																			
1600																			
2000																			
2500																			
3150																			
4000																			
5000																			
6300																			
8000																			
10000																			
OCTAVE																			
31.5																			
63																			
125																			
250																			
500																			
1000																			
2000																			
4000																			
8000																			
10000																			
OVERALL																			

FIGURE 1 NORMALIZED FARFIELD NOISE LEVELS

3 DISTANCE = 100 METERS

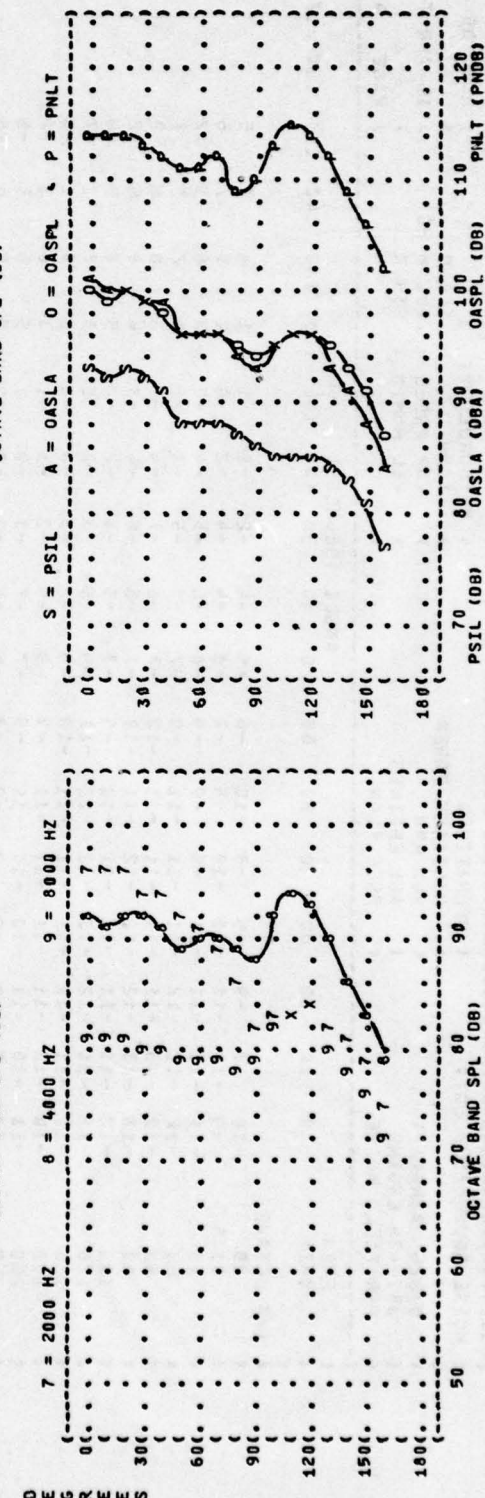
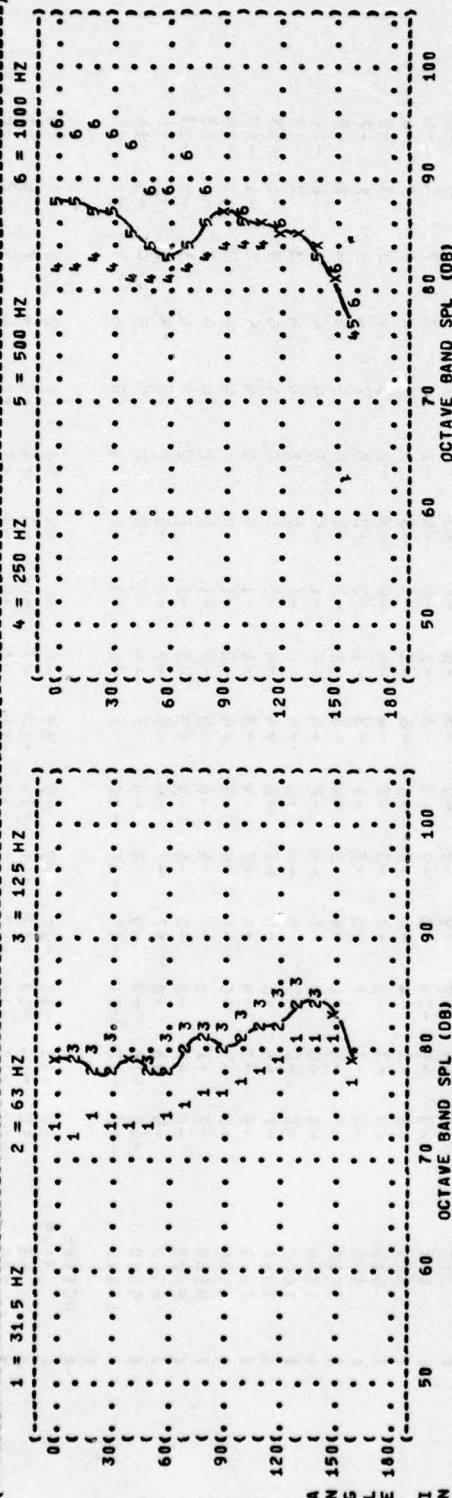
NOISE SOURCE/SUBJECT:

B-52G AIRCRAFT
J57-43M ENGINE
FAR FIELD NOISE

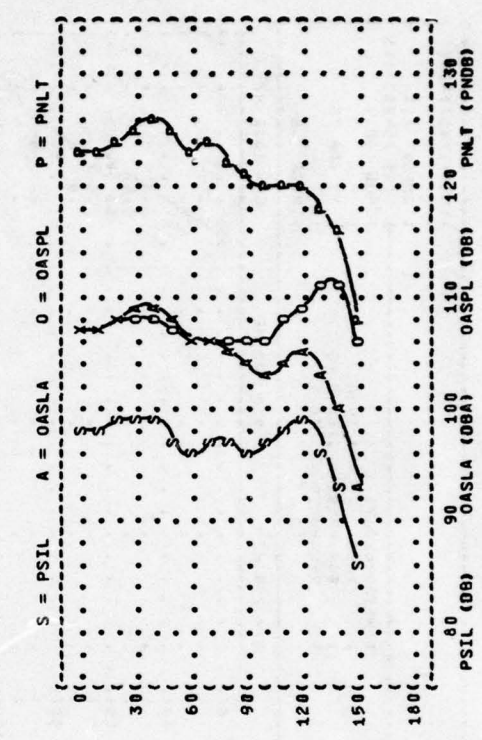
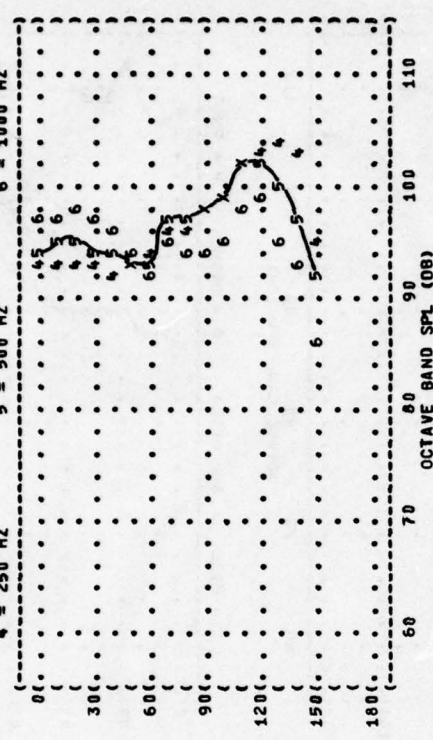
OPERATION:
IDLE POWER
61% RPM
ALL ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 01
15 APR 75
PAGE 6



IDENTIFICATION: OMEGA 1.4
 TEST 75-002-010
 RUN 03
 15 APR 75
 PAGE 6
 METEOROLOGICAL: TEMP = 15 C
 BAR PRESS = .760 M HG
 REL HUMID = 70 %
 NOISE SOURCE/SUBJECT: 8-52G AIRCRAFT
 J57-K3M ENGINE
 FAR FIELD NOISE
 OPERATION: 80% RPM
 ALL ENGINES
 FREE FLOW
 DISTANCE = 100 METERS
 NOISE SOURCE/SUBJECT: 1 = 31.5 HZ 2 = 63 HZ 3 = 125 HZ



A N 150
 G C
 L E 100
 I N
 D E C
 R E E
 S S

FIGURE 1: NORMALIZED FARFIELD NOISE LEVELS

3 DISTANCE = 100 METERS

NOISE SOURCE/SUBJECT:

B-52G AIRCRAFT
J57-43H ENGINE
FAR FIELD NOISE

OPERATION:

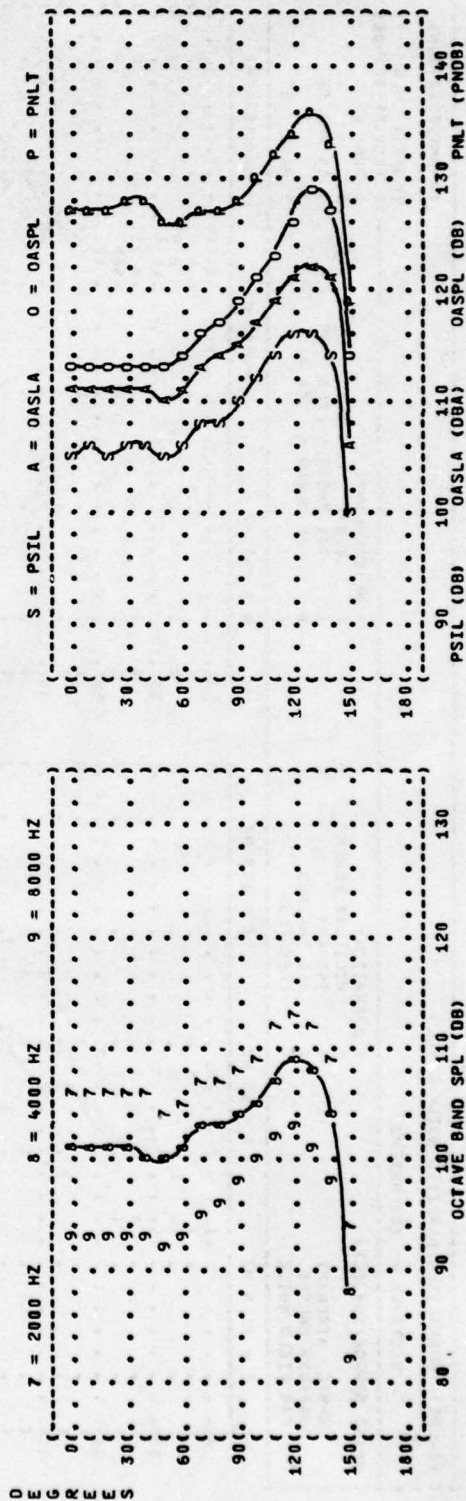
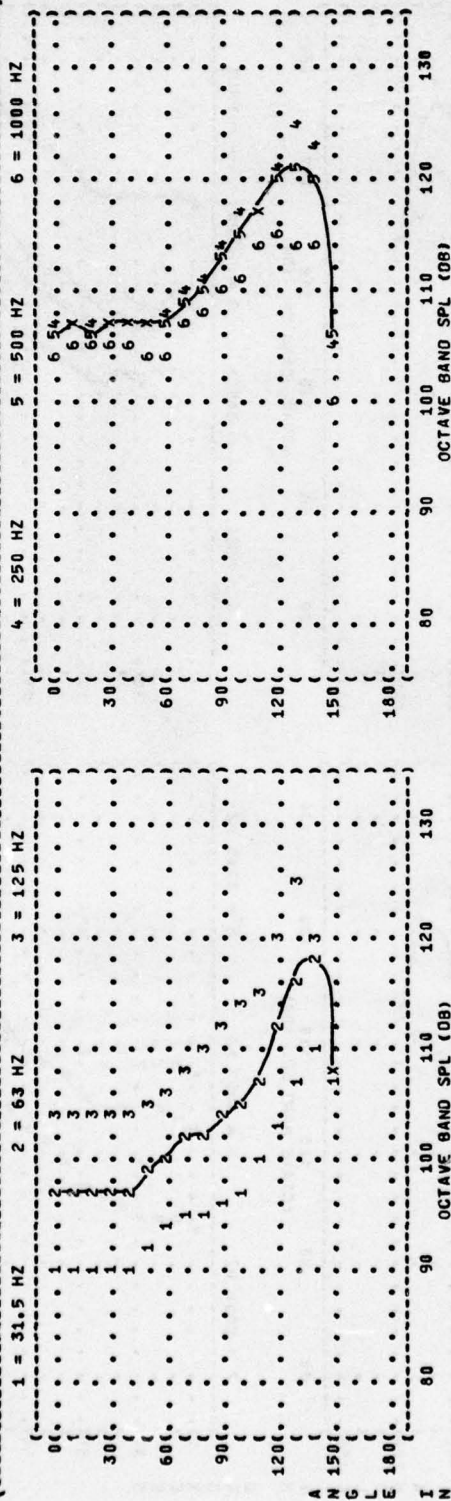
90% RPM
ALL ENGINES
FREE FLOW

METEOROLOGY:

TEMP = 15 C
BAR PRESS = 760 MM HG
REL HUMID = 70 %

IDENTIFICATION:

OMEGA 1.4
TEST 75-002-010
RUN 04
15 APR 75
PAGE 6



DISTANCE = 100 METERS

3

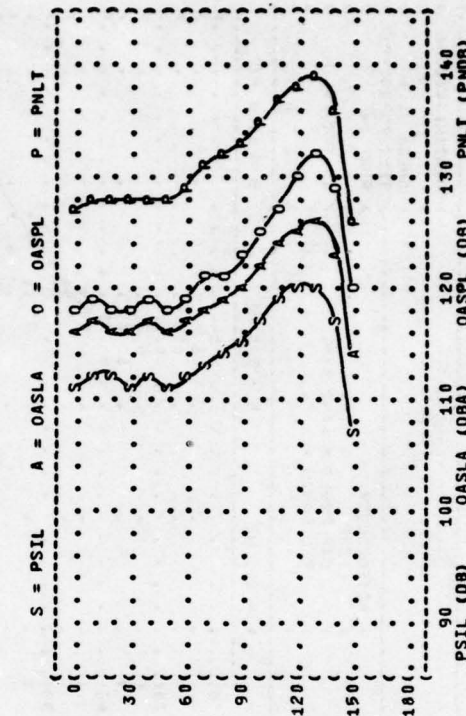
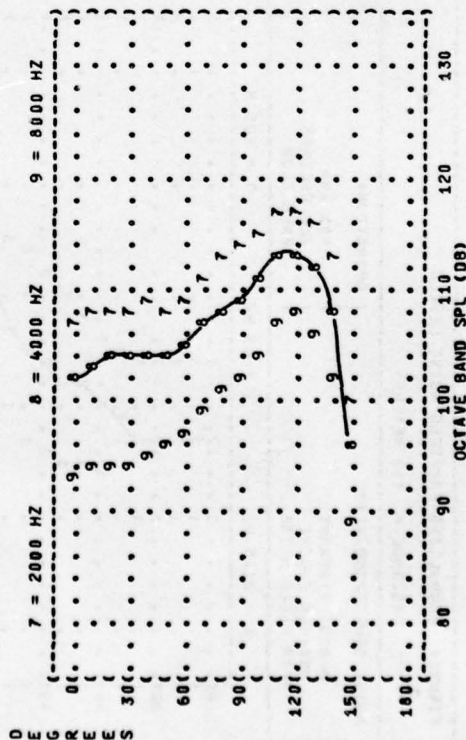
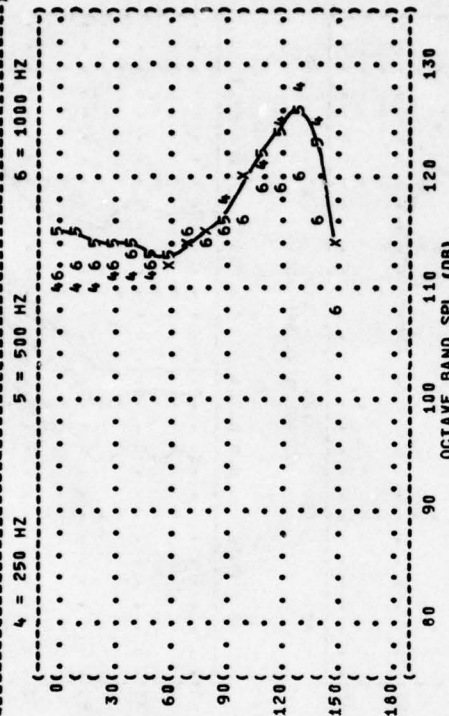
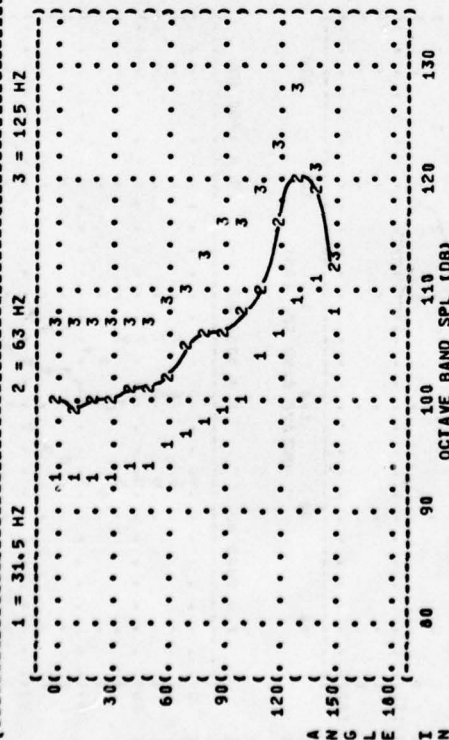
DISTANCE = 100 METERS

8-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

(OPERATION:
(MILITARY POWER
(94% RPM
(ALL ENGINES
(FREE FLOW

OROGRAPHY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

RUN 05
 15 APR 75
 PAGE 6



(FIGURE: ACOUSTIC POWER LEVEL (PWL))
 (4)
 (NOISE SOURCE/SUBJECT:)
 (B-52G AIRCRAFT)
 (J57-43M ENGINE)
 (FAR FIELD NOISE)
 (OPERATION:)
 (IDLE POWER)
 (61% RPM)
 (ALL ENGINES)
 (FREE FLOW)
 (METEOROLOGY:)
 (TEMP = 16 C)
 (BAR PRESS = .701 M HG)
 (REL HUMID = 39 %)
 (IDENTIFICATION:)
 (OMEGA 1.4)
 (TEST 75-002-010)
 (RUN 01)
 (15 APR 75)
 (PAGE 3)

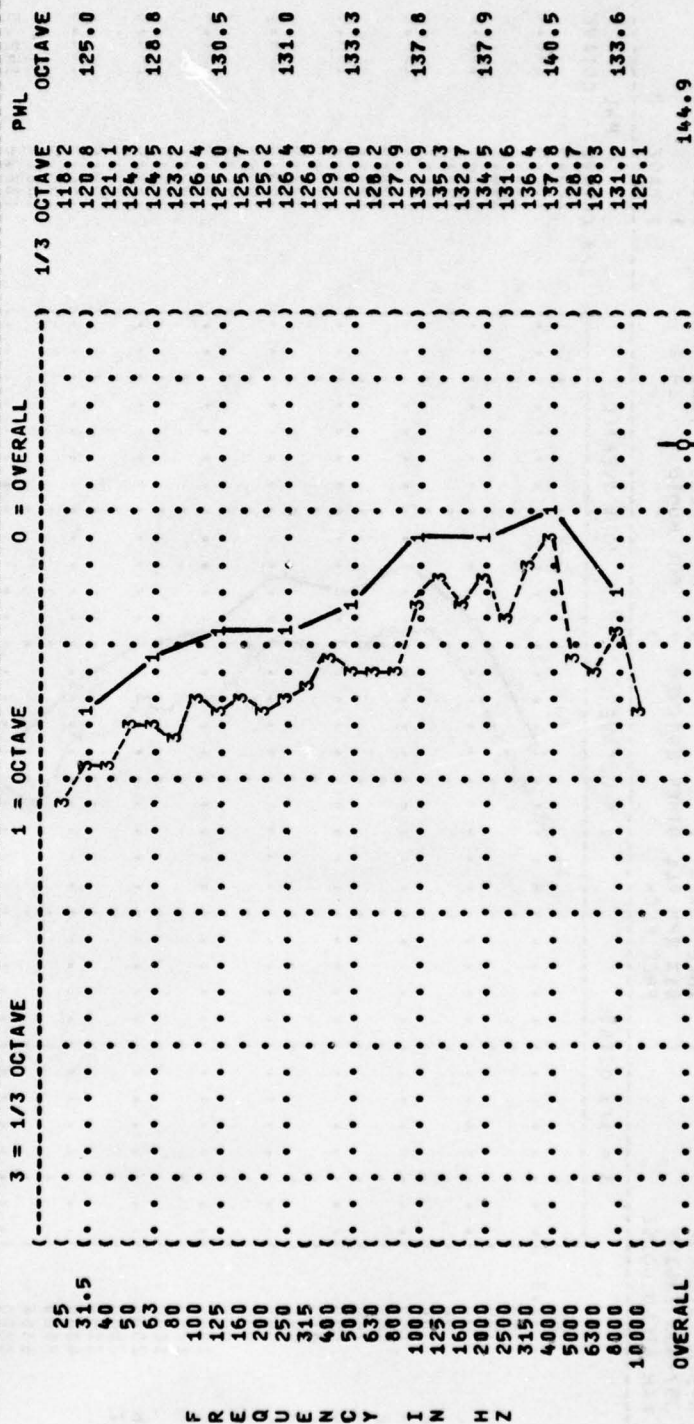


FIGURE: ACOUSTIC POWER LEVEL (PWL)

4

IDENTIFICATION: OMEGA 1.4
TEST 75-002-010
RUN 02
15 APR 75
PAGE 3

NOISE SOURCE/SUBJECT: OPERATIONS: 90% RPM ENGINE NO. 4
B-52G AIRCRAFT IDLE POWER
J57-43W ENGINE 61% RPM ALL OTHER ENGINES
FAR FIELD NOISE FREE FLOW

METEOROLOGY: TEMP = 16 C
BAR PRESS = .701 M HG
REL HUMID = 39 %

3 = 1/3 OCTAVE 1 = OCTAVE 0 = OVERALL

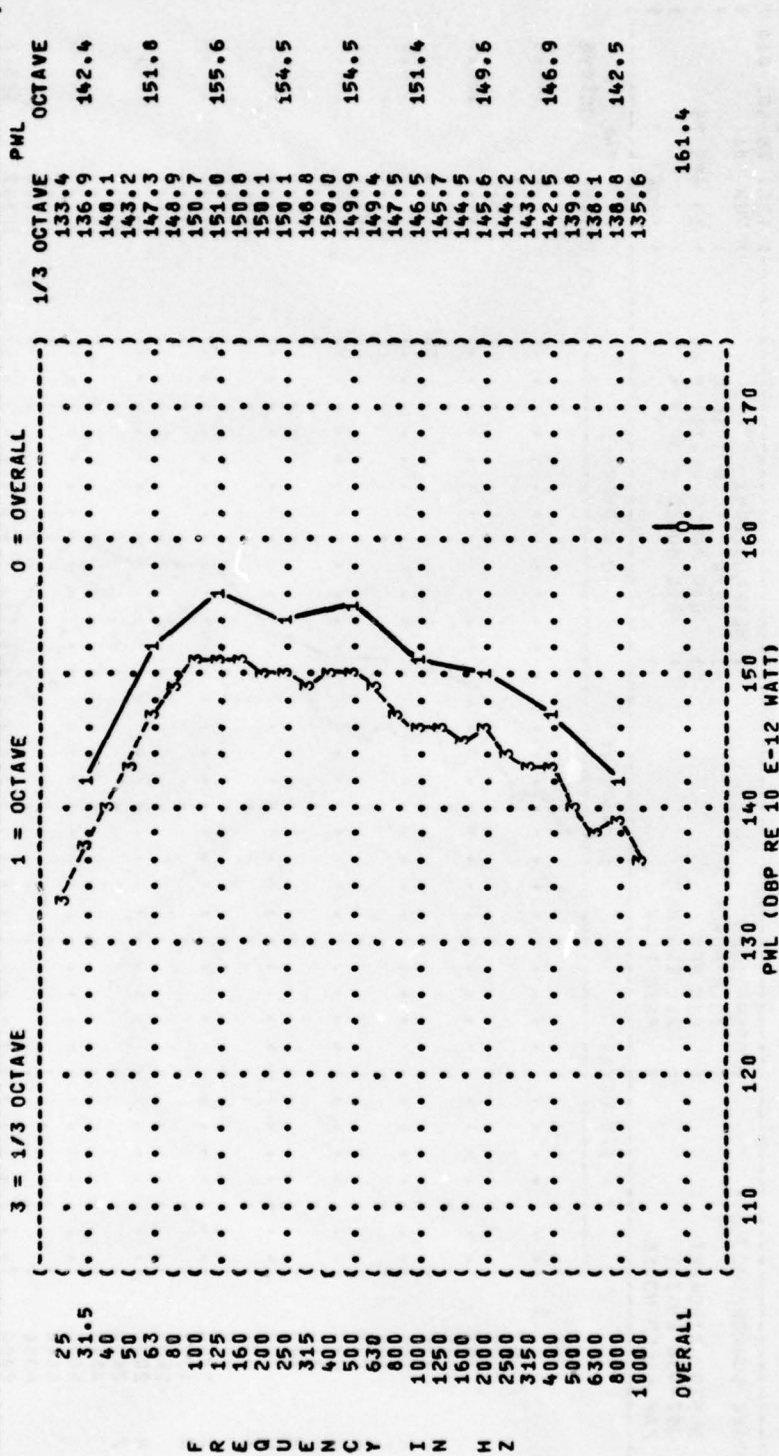


FIGURE: ACOUSTIC POWER LEVEL (PWL)

4

IDENTIFICATION:

OMEGA 1.4

TEST 75-002-010

RUN 04

15 APR 75

PAGE 3

NOISE SOURCE/SUBJECT:

OPERATION:

90% RPM

ALL ENGINES

FREE FLOW

METEOROLOGY:

TEMP = 16 C

BAR PRESS = .701 M HG

REL HUMID = 39 %

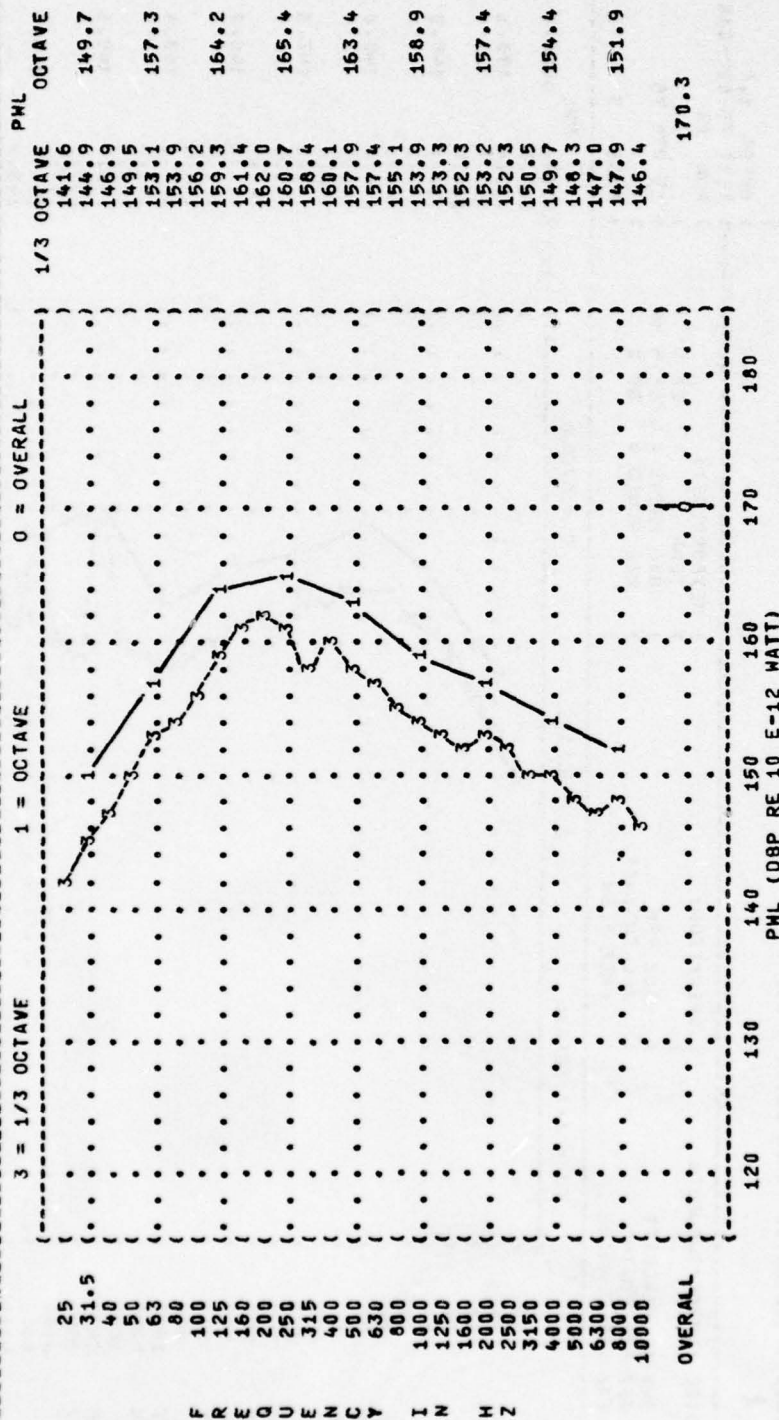


FIGURE: ACOUSTIC POWER LEVEL (PWL)

4

IDENTIFICATION:

OMEGA 1.4

TEST 75-002-010

RUN 05

15 APR 75

PAGE 3

NOISE SOURCE/SUBJECT:

OPERATION:

MILITARY POWER

94% RPM

ALL ENGINES

FREE FLOW

METEOROLOGY:

TEMP = 16 C

BAR PRESS = .701 M HG

REL HUMID = 39 %

B-52G AIRCRAFT

J57-43M ENGINE

FAR FIELD NOISE

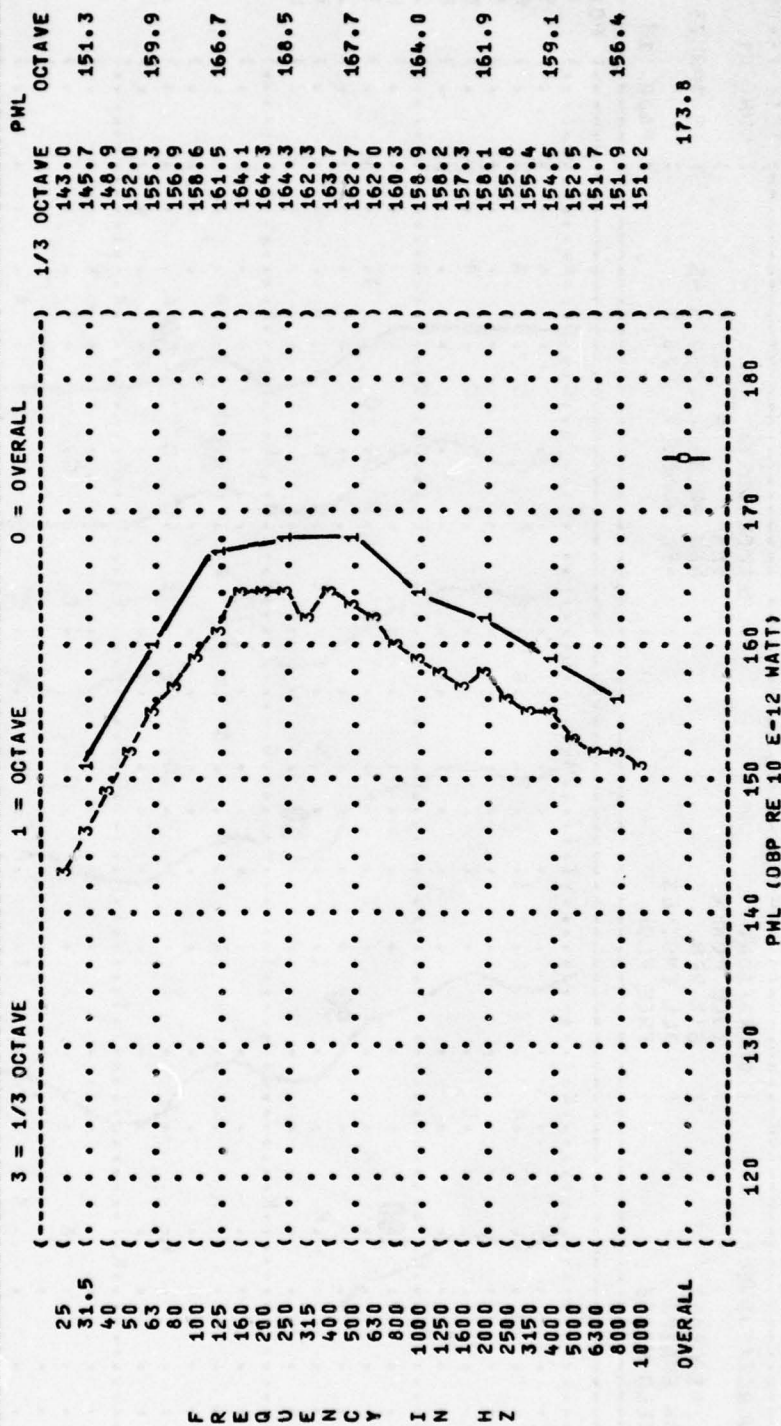
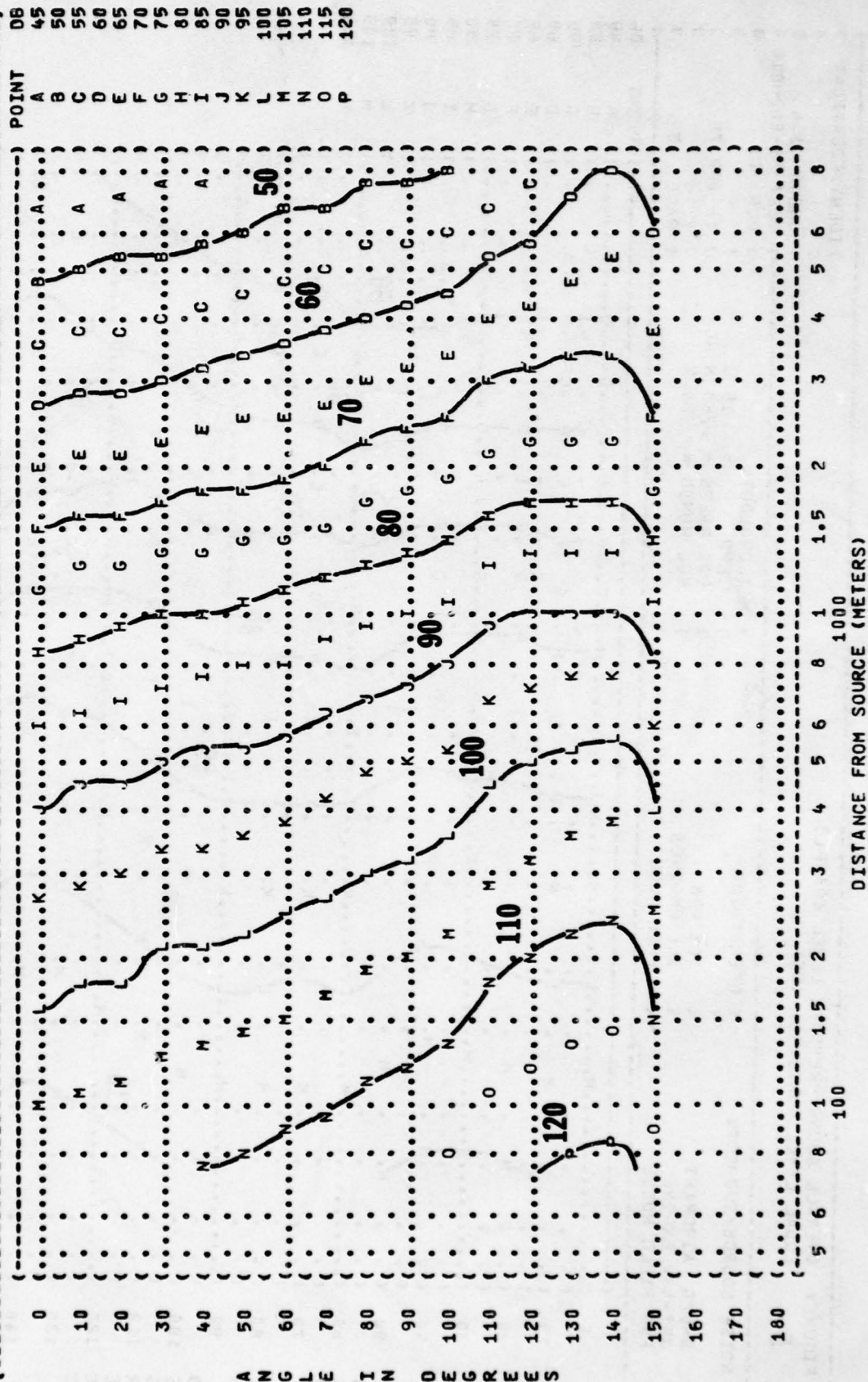


FIGURE: OVERALL SOUND PRESSURE LEVEL (OASPL)
 5
 EQUAL LEVEL CONTOURS (DB)

NOISE SOURCE/SUBJECT: (OPERATION:) METEOROLOGY:)
 (90% RPM ENGINE NO. 4) TEMP = 15 C)
 (IDLE POWER) BAR PRESS = .760 M HG)
 (61% RPM ALL OTHER ENGINES) REL HUMID = 70 %)
 (FREE FLOW))

8-52G AIRCRAFT
 J57-43M ENGINE
 FAR FIELD NOISE

OMEGA 1.4
 TEST 75-002-010
 RUN 02
 15 APR 75
 PAGE 13



IDENTIFICATION:)
)

OMEGA 1.4

METEOROLOGY:

03 RUN

TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

BAR PRESS = .760 M HG

REL HUMID = 70 %

PAGE 13

-----) POINT

ANGLE IN DEGREES

DISTANCE FROM SOURCE (METERS)

IDENTIFICATION:
 OMEGA 1.4
 TEST 75-002-010
 RUN 04
 15 APR 75
 PAGE 13

METEOROLOGY:
 TEMP = 15 C
 BAR PRESS = .760 M HG
 REL HUMID = 70 %

OPERATION:
 90% RPM
 ALL ENGINES
 FREE FLOW

NOISE SOURCE/SUBJECT:
 8-52G AIRCRAFT
 J57-43M ENGINE
 FAR FIELD NOISE

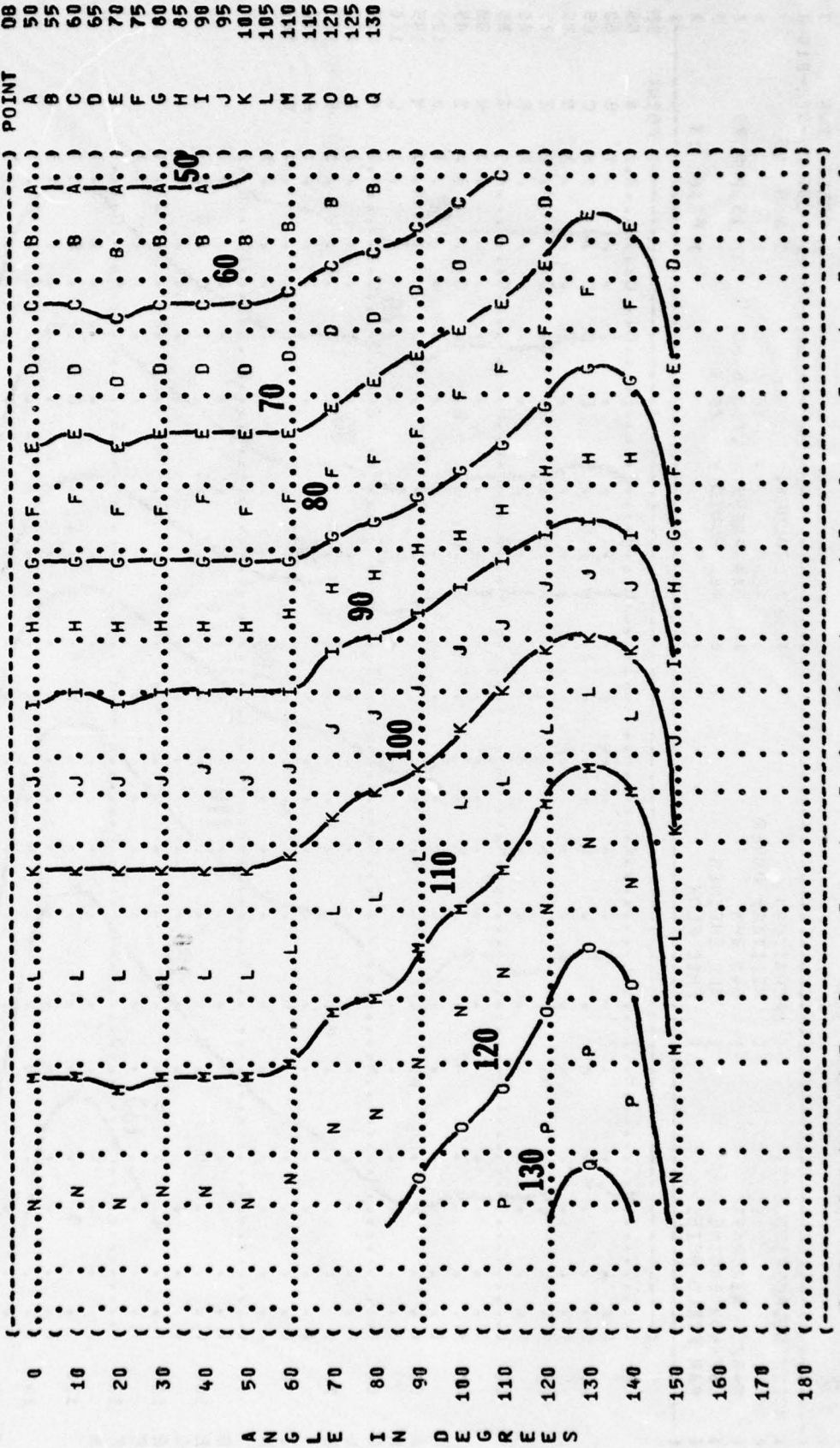


FIGURE: OVERALL SOUND PRESSURE LEVEL (OASPL)
 5
 IDENTIFICATION:
 OMEGA 1.4
 TEST 75-002-010
 RUN 05
 METEOROLOGY:
 TEMP = 15 C
 BAR PRESS = .760 M HG
 REL HUMID = 70 %
 OPERATION:
 MILITARY POWER
 94% RPM
 ALL ENGINES
 FREE FLOW
 NOISE SOURCE/SUBJECT:
 B-52G AIRCRAFT
 J57-43W ENGINE
 FAR FIELD NOISE
 15 APR 75
 PAGE 13

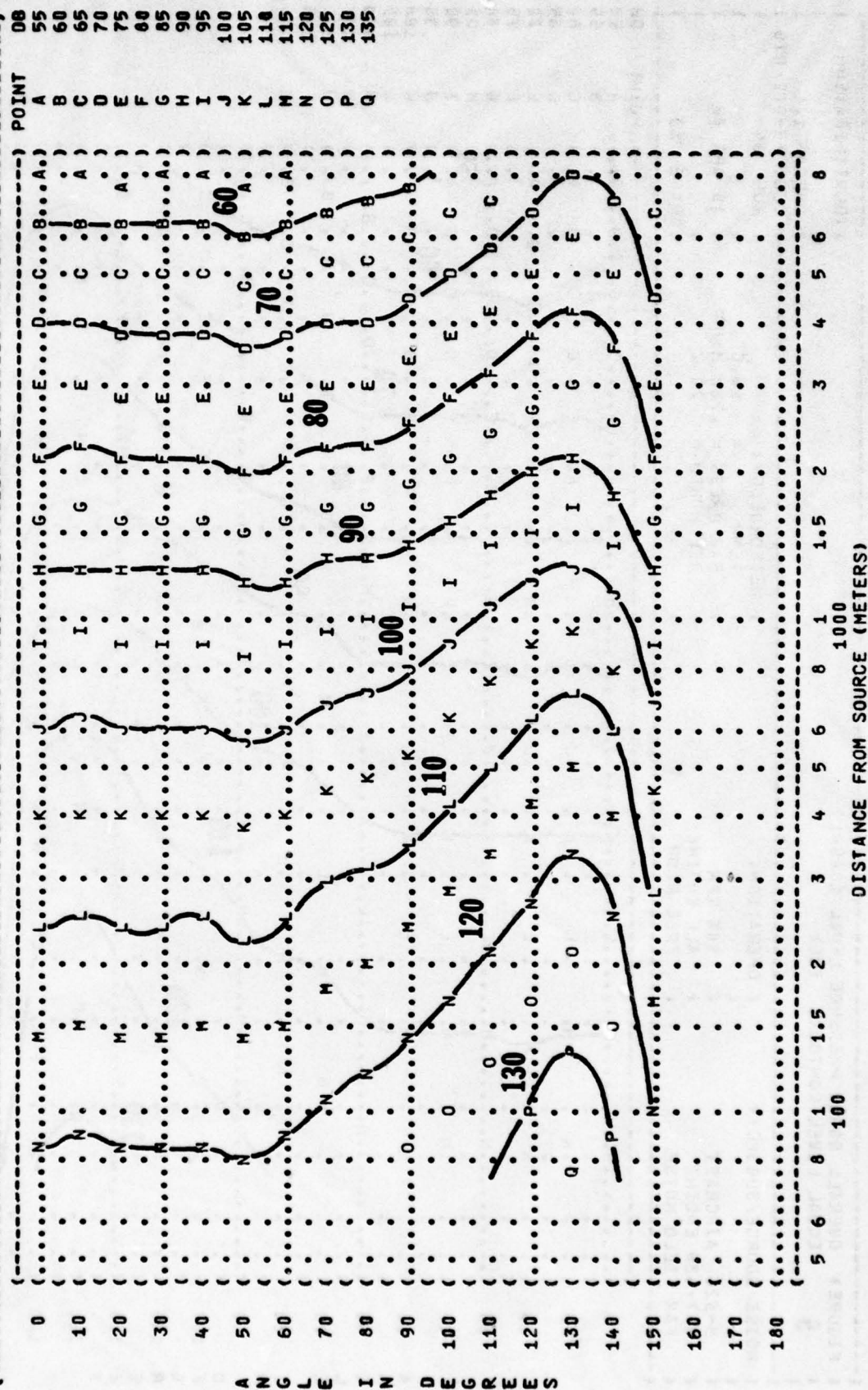
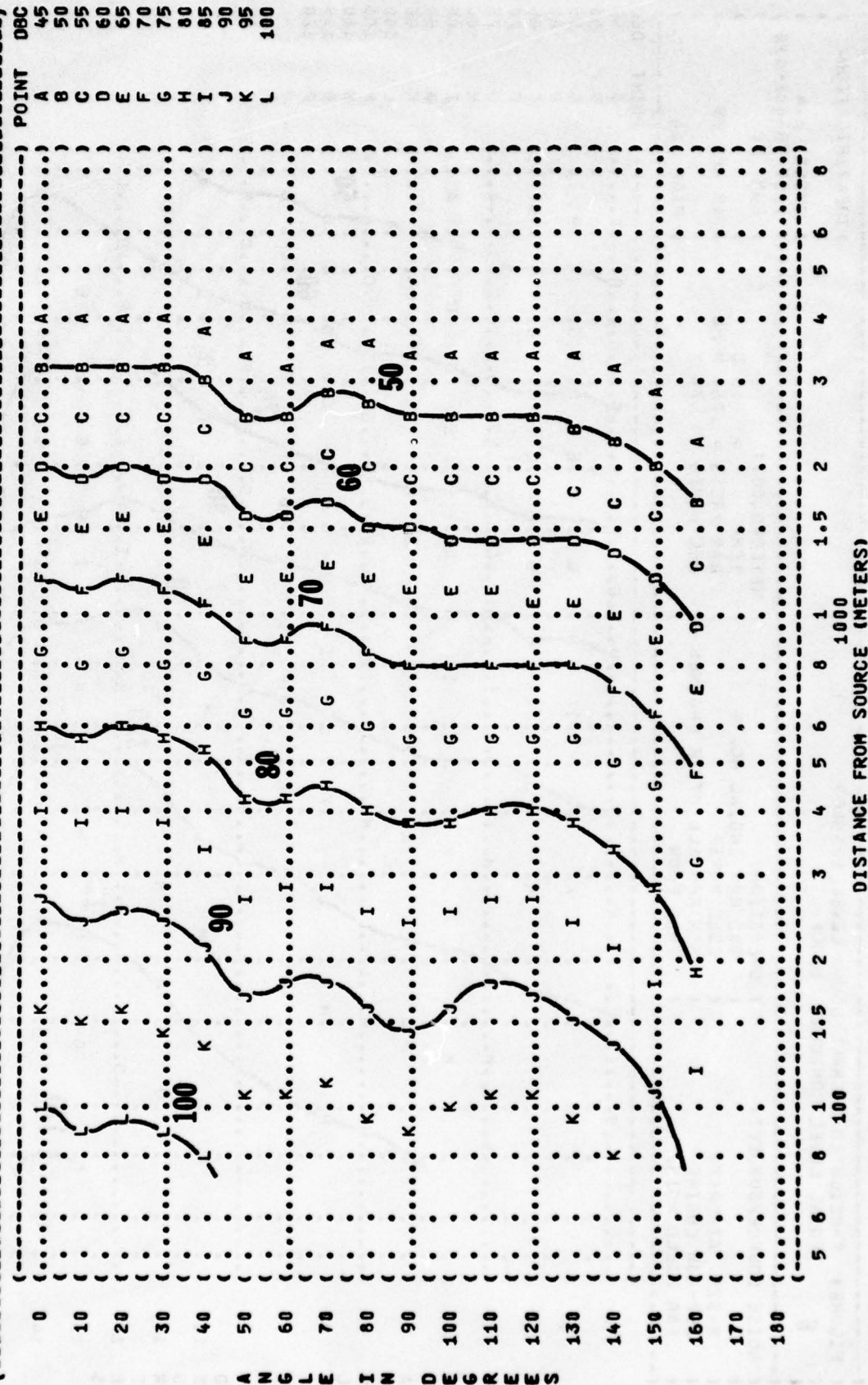
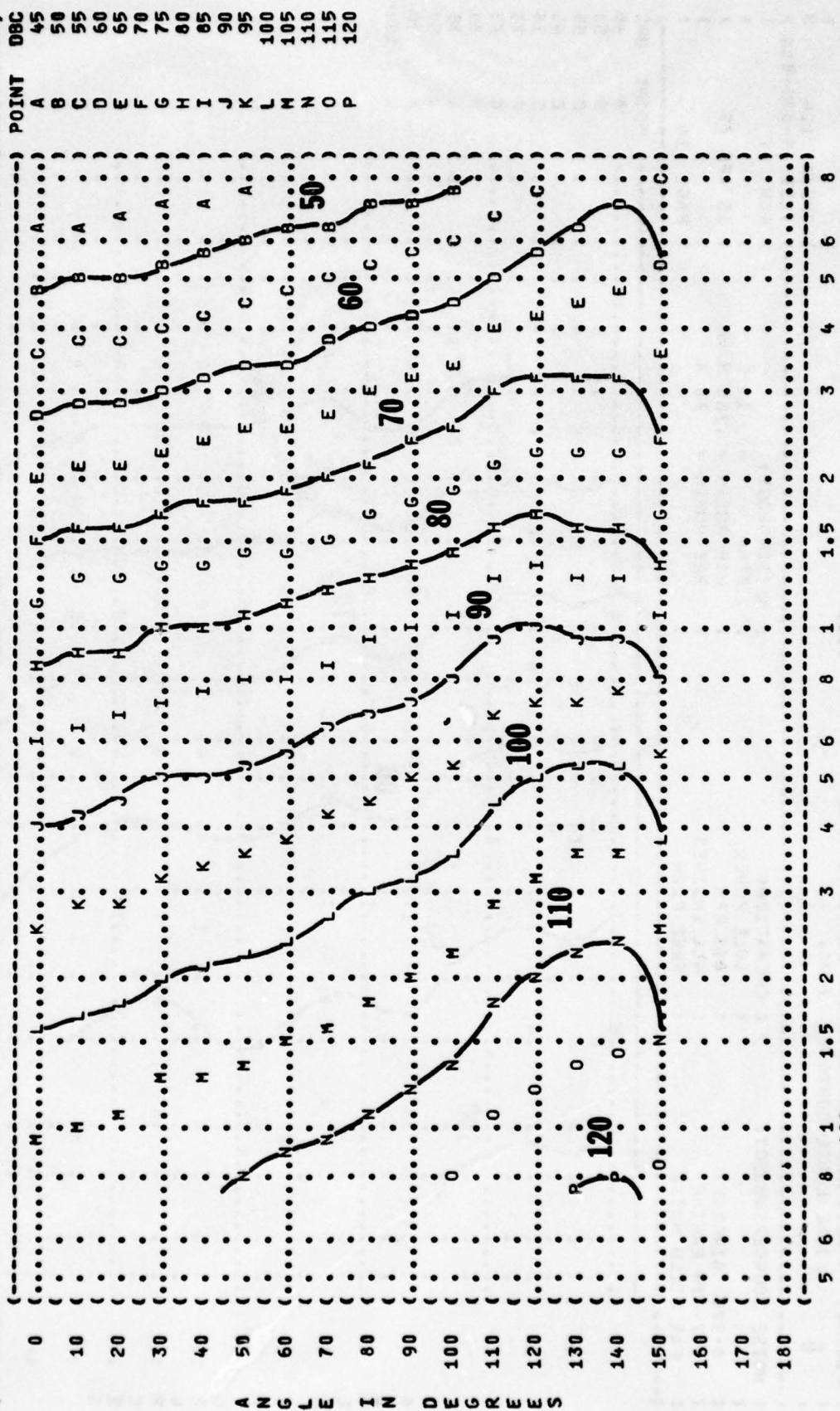


FIGURE: C-WEIGHTED OVERALL SOUND LEVEL (OASLC)		IDENTIFICATION:
EQUAL LEVEL CONTOURS (D9C)		
6		OMEGA 1.4
		TEST 75-002-010
NOISE SOURCE/SUBJECT:		RUN 01
OPERATION:		METEOROLOGY:
(IDLE POWER		TEMP = 15 C
(61% RPM		BAR PRESS = .760 M HG
(ALL ENGINES		REL HUMID = 70 %
(FREE FLOW		PAGE 14



(FIGURE: C-WEIGHTED OVERALL SOUND LEVEL (OASLC))
 (6)
 () IDENTIFICATION:)
 () OMEGA 1.4)
 () TEST 75-002-010)
 () RUN 02)
 () METEOROLOGY:)
 () TEMP = 15 C)
 () BAR PRESS = .760 M HG)
 () REL HUMID = 70 %)
 () 15 APR 75)
 () PAGE 14)
 ()
 (NOISE SOURCE/SUBJECT:)
 () OPERATION:)
 () 90% RPM ENGINE NO. 4)
 () IDLE POWER)
 () 61% RPM ALL OTHER ENGINES)
 () FREE FLOW)
 ()
 (8-52G AIRCRAFT)
 (J57-43M ENGINE)
 (FAR FIELD NOISE)



DISTANCE FROM SOURCE (METERS)

FIGURE: C-WEIGHTED OVERALL SOUND LEVEL (OASLC)
 6 EQUAL LEVEL CONTOURS (OBC)

NOISE SOURCE/SUBJECT:

8-52G AIRCRAFT
 J57-43M ENGINE
 FAR FIELD NOISE

OPERATION:

80% RPM
 ALL ENGINES
 FREE FLOW

METEOROLOGY:

TEMP = 15 C
 BAR PRESS = .760 M HG
 REL HUMID = 70 %

IDENTIFICATION:

OMEGA 1.4

TEST 75-002-010

RUN 03

15 APR 75

PAGE 14

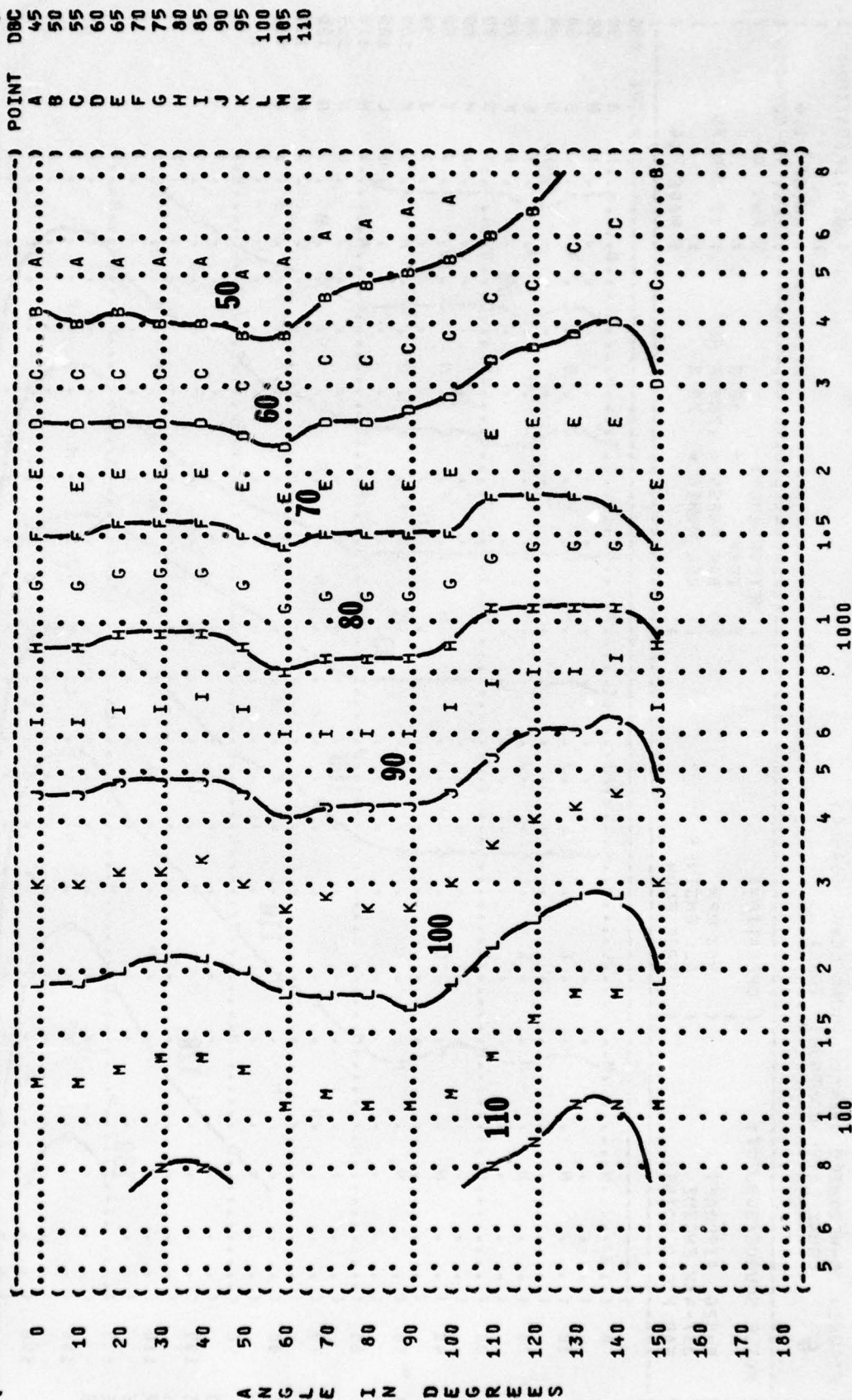


FIGURE: C-WEIGHTED OVERALL SOUND LEVEL (OASLC)
 6
 IDENTIFICATION:
 OMEGA 1.4
 TEST 75-002-010
 RUN 04
 15 APR 75
 PAGE 14

NOISE SOURCE/SUBJECT:
 (OPERATION:
 (90% RPM
 (ALL ENGINES
 (FREE FLOW

METEOROLOGY:
 TEMP = 15 C
 BAR PRESS = .760 M HG
 REL HUMID = 70 %

NOISE SOURCE/SUBJECT:
 B-52G AIRCRAFT
 J57-43W ENGINE
 FAR FIELD NOISE

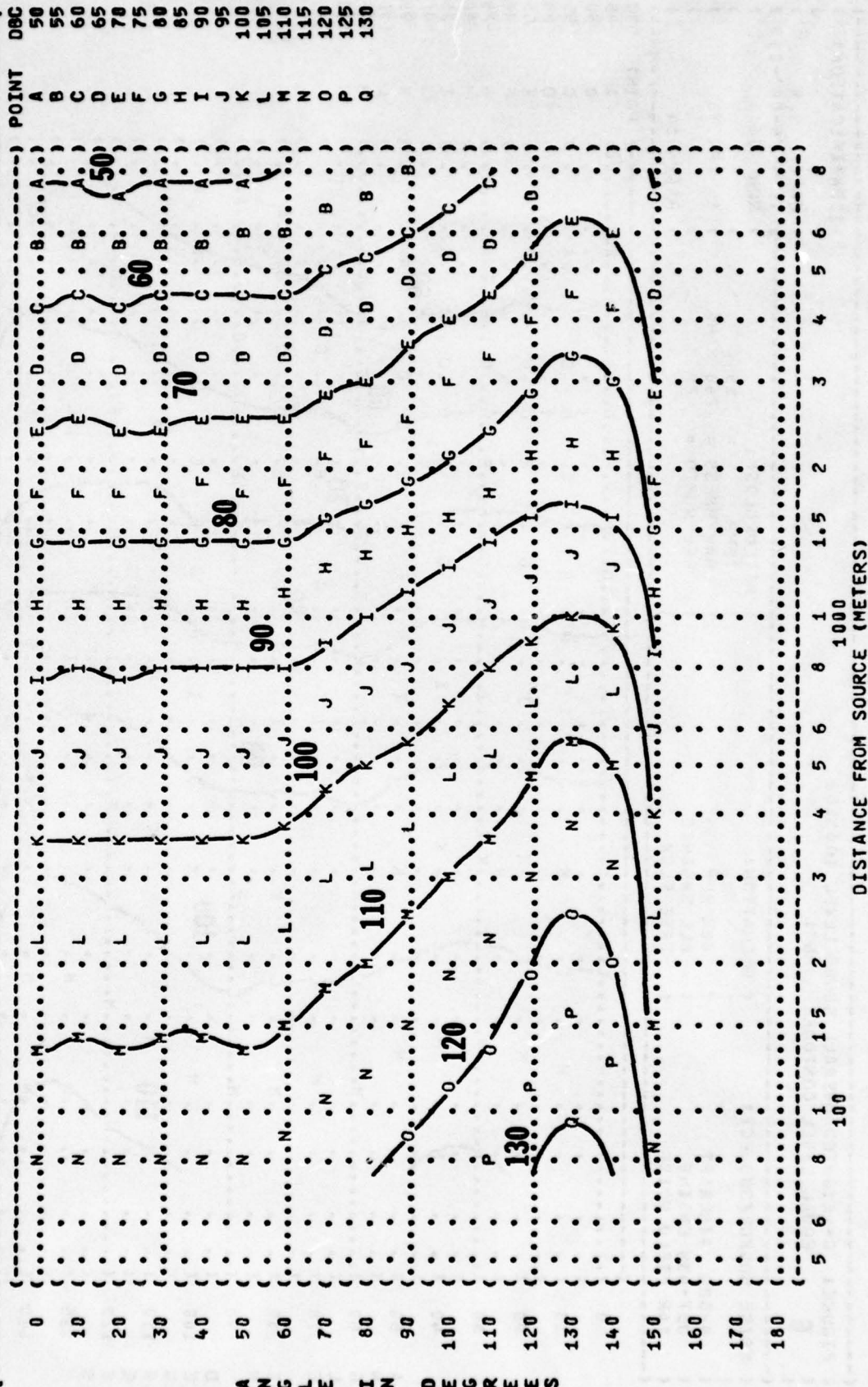


FIGURE 1 C-WEIGHTED OVERALL SOUND LEVEL (OASLC)
EQUAL LEVEL CONTOURS (OBC)

6

NOISE SOURCE/SUBJECT:

B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:

MILITARY POWER
94% RPM
ALL ENGINES
FREE FLOW

METEOROLOGY:

TEMP = 15 C
BAR PRESS = .750 M HG
REL HUMID = 70 %

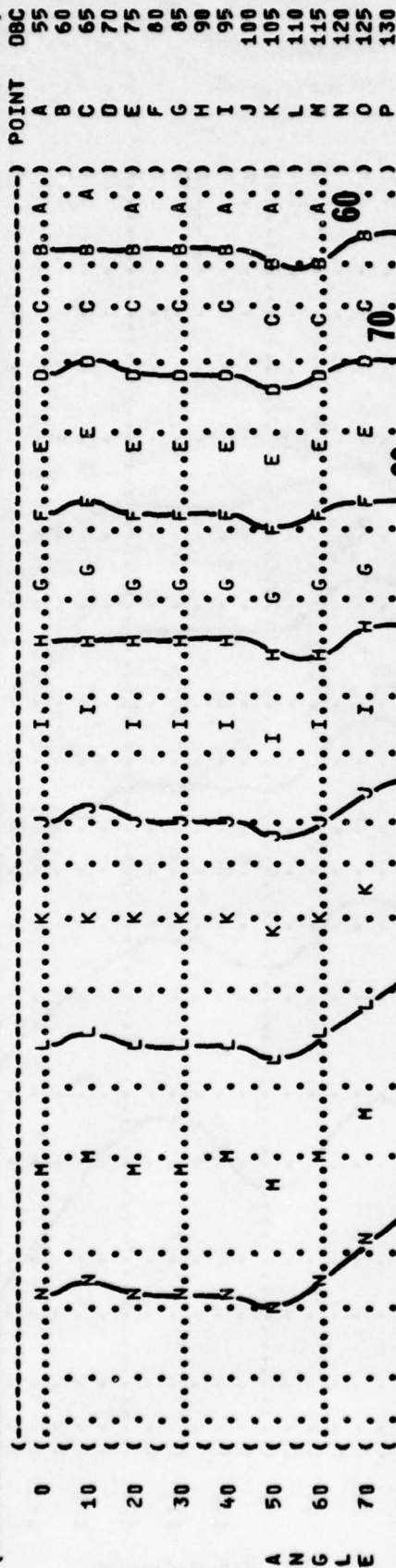
OMEGA 1.4

TEST 75-002-010

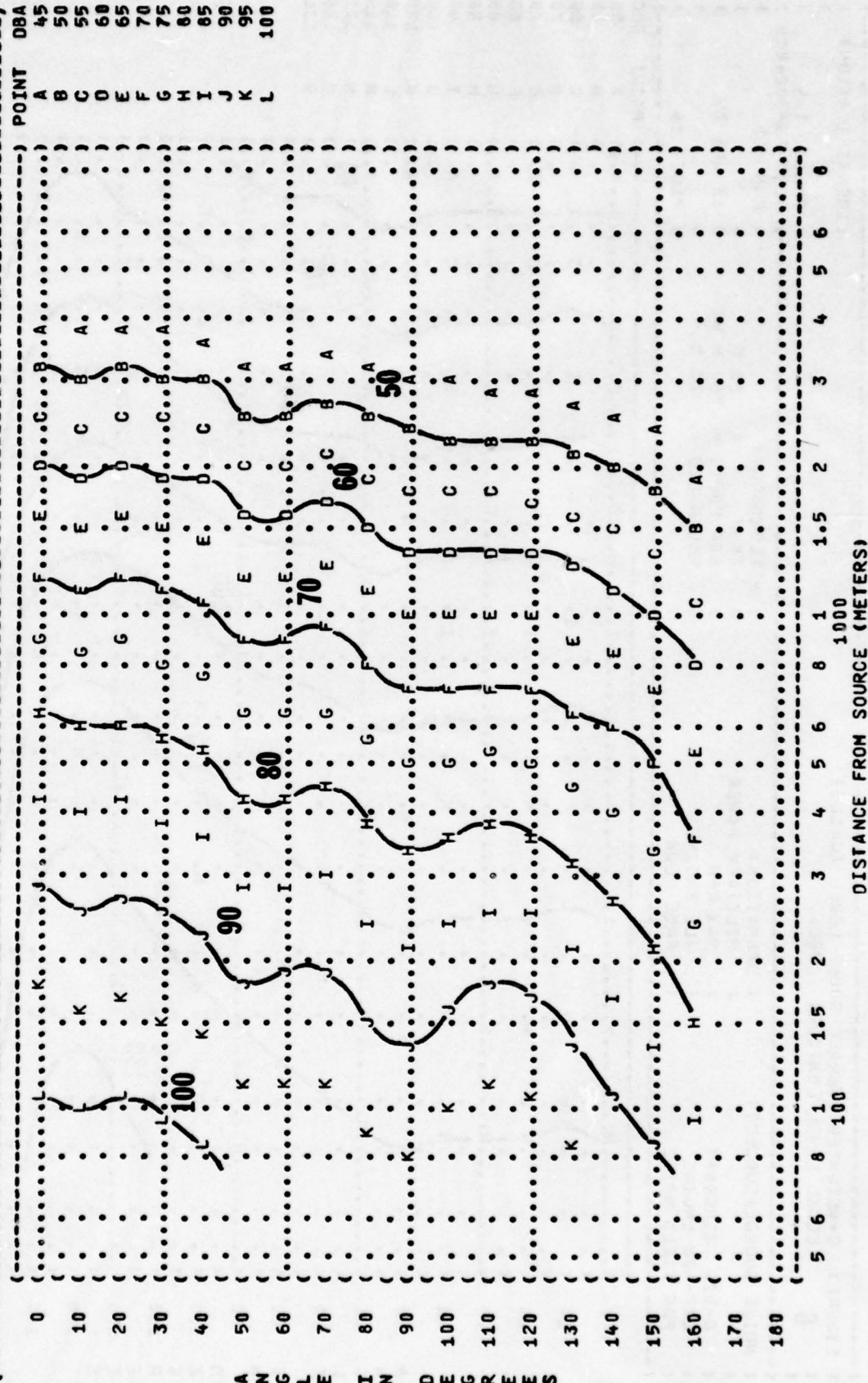
RUN 05

15 APR 75

PAGE 14



(FIGURE: A-WEIGHTED OVERALL SOUND LEVEL (OASLA)
 (7
 (EQUAL LEVEL CONTOURS (DBA)
 () IDENTIFICATION:
 () OMEGA 1.4
 () TEST 75-002-010
 () RUN 01
 () 15 APR 75
 () PAGE 15
 ()
 (NOISE SOURCE/SUBJECT:) OPERATION:
 () IDLE POWER
 () 61% RPM
 () ALL ENGINES
 () FREE FLOW
 () METEOROLOGY:
 () TEMP = 15 C
 () BAR PRESS = .760 H HG
 () REL HUMID = 70 %



A N G L E I N D E G R E E S

IDENTIFICATION:

METEOROLOGY:

P = 15 C

BAR PRESS = .760 M HG

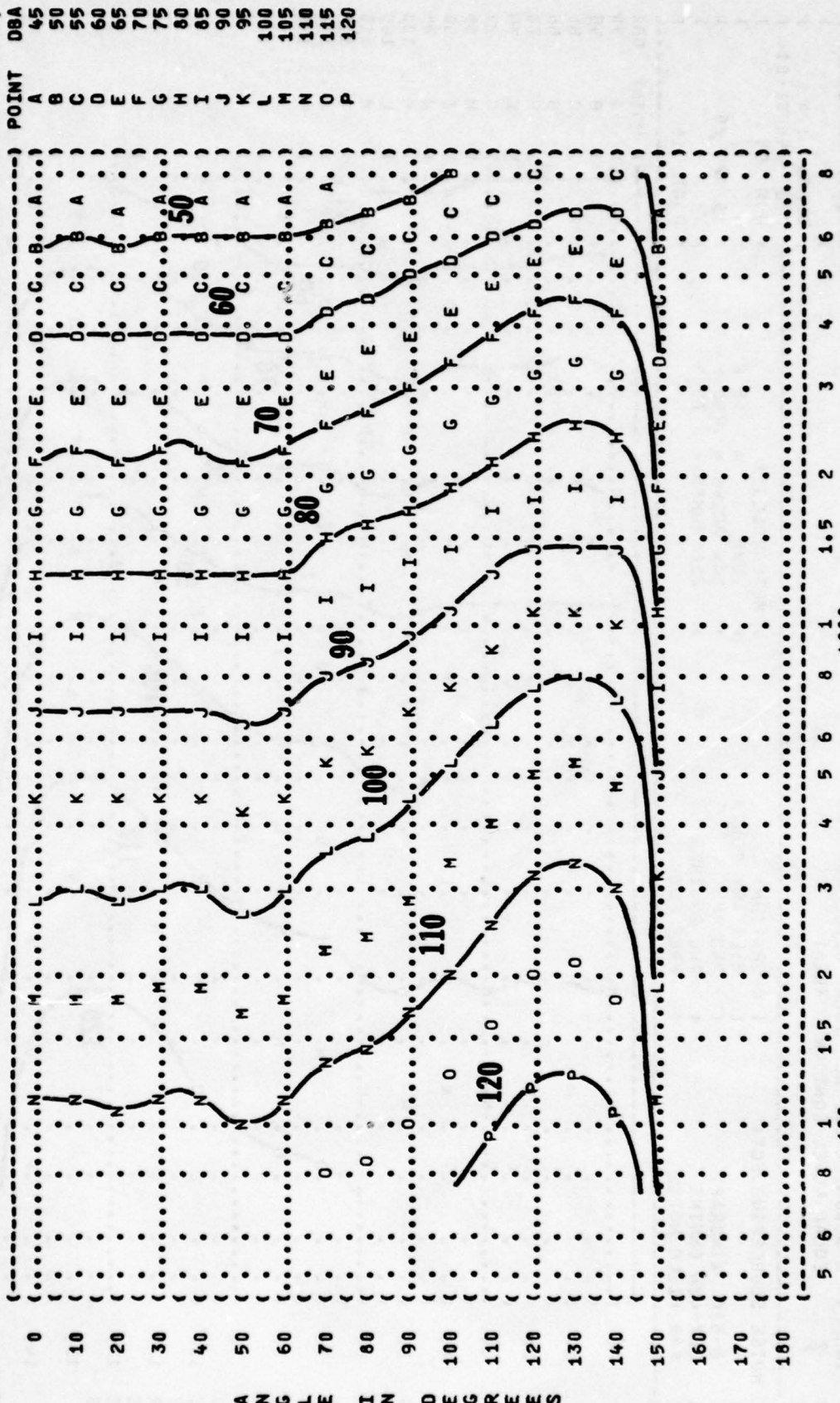
REL HUMID = 70 %

PAGE 15

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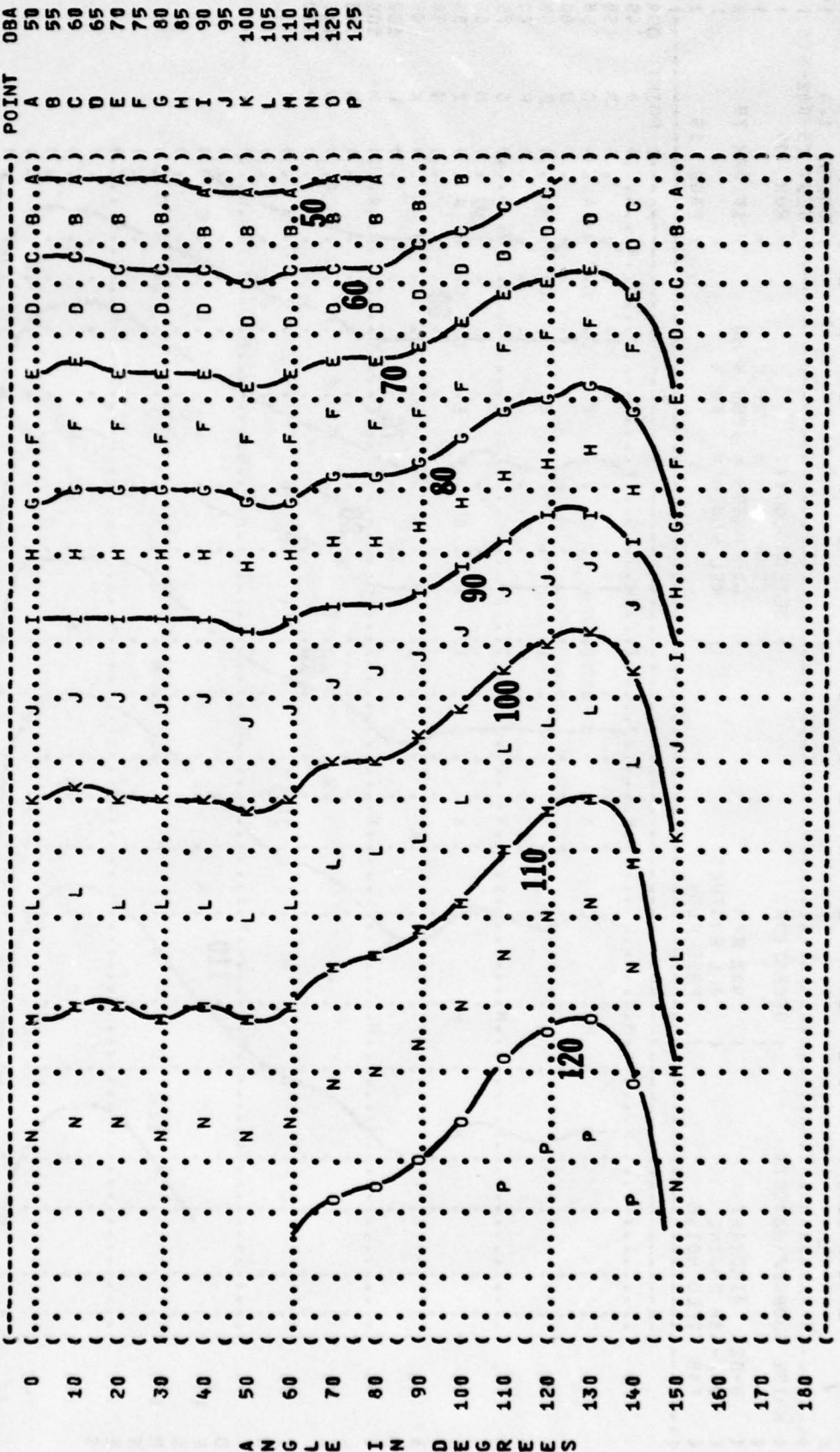


(FIGURE: A-WEIGHTED OVERALL SOUND LEVEL (OASLA)
 (7
 (EQUAL LEVEL CONTOURS (DBA)
 () IDENTIFICATION:
 () OMEGA 1.4
 () TEST 75-002-010
 () RUN 04
 () 15 APR 75
 () PAGE 15
 () METEOROLOGY:
 () TEMP = 15 C
 () BAR PRESS = .760 M HG
 () REL HUMID = 70 %
 () OPERATION:
 () 90% RPM
 () ALL ENGINES
 () FREE FLOW
 () NOISE SOURCE/SUBJECT:
 () B-52G AIRCRAFT
 () J57-43M ENGINE
 () FAR FIELD NOISE



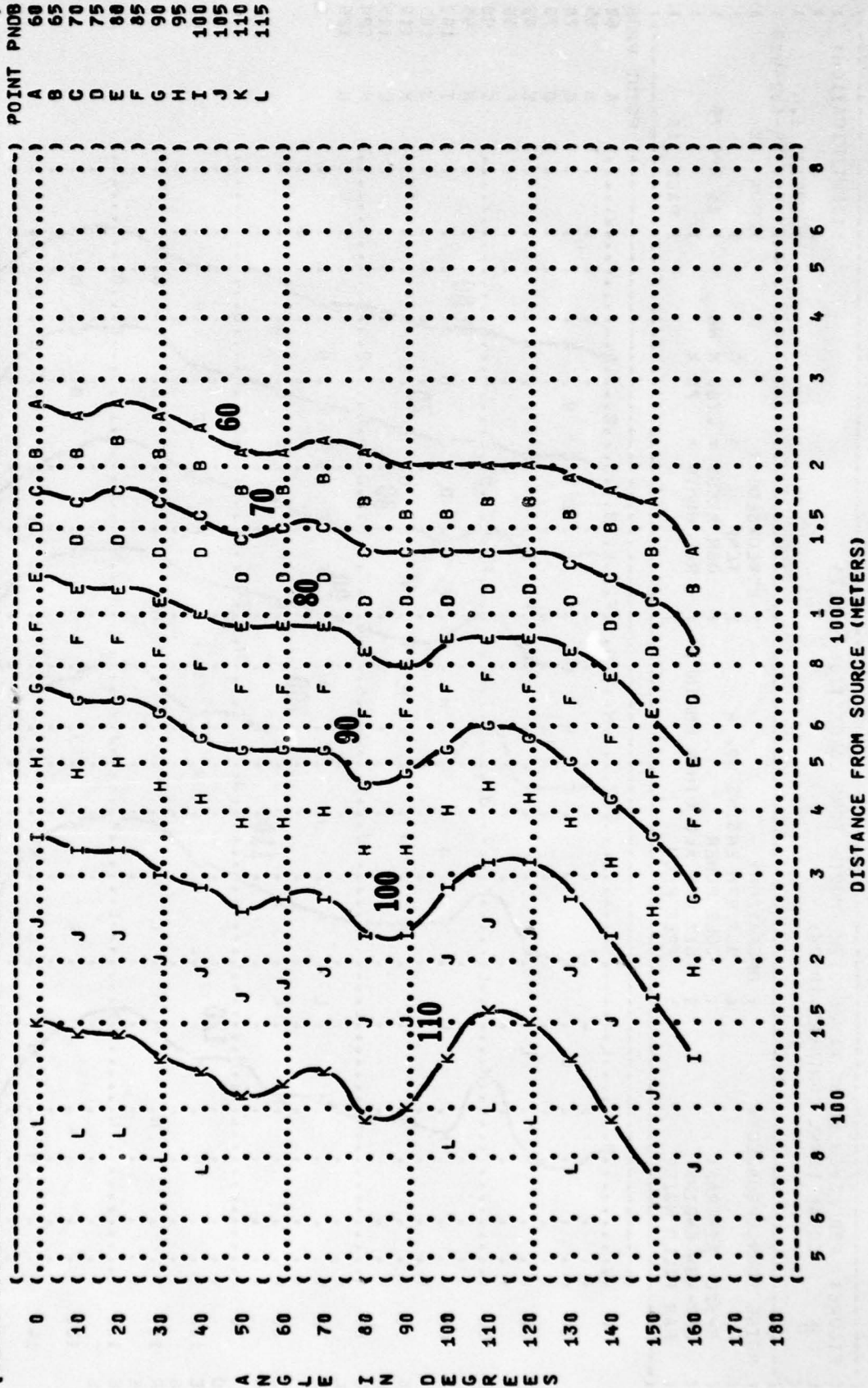
DISTANCE FROM SOURCE (METERS)

FIGURE: A-WEIGHTED OVERALL SOUND LEVEL (OASLA)
 7
 IDENTIFICATION:
 OMEGA 1.4
 TEST 75-002-010
 RUN 05
 15 APR 75
 PAGE 15
 NOISE SOURCE/SUBJECT:
 OPERATION:
 MILITARY POWER
 94% RPM
 ALL ENGINES
 FREE FLOW
 METEOROLOGY:
 TEMP = 15 C
 BAR PRESS = .760 M HG
 REL HUMID = 70 %



POINT OBA
 A 50
 B 55
 C 60
 D 65
 E 70
 F 75
 G 80
 H 85
 I 90
 J 95
 K 100
 L 105
 M 110
 N 115
 O 120
 P 125

FIGURE: PERCEIVED NOISE LEVEL WITH SMOOTH TONE CORRECTION (PNLT)
 8
 IDENTIFICATION: OMEGA 1.4
 TEST 75-002-010
 RUN 01
 METEOROLOGY: TEMP = 15 C
 BAR PRESS = .760 M HG
 REL HUMID = 70 %
 15 APR 75
 PAGE 16



IDENTIFICATION:

OMEGA 1.4

METEOROLOGY:

02
RUN

90% RPM ENGINE NO. 4
IDLE POWER

TEMP = 15 C
BAR PRESS = .760 M HG

**61% RPM ALL OTHER ENGINES
FREE FLOW**

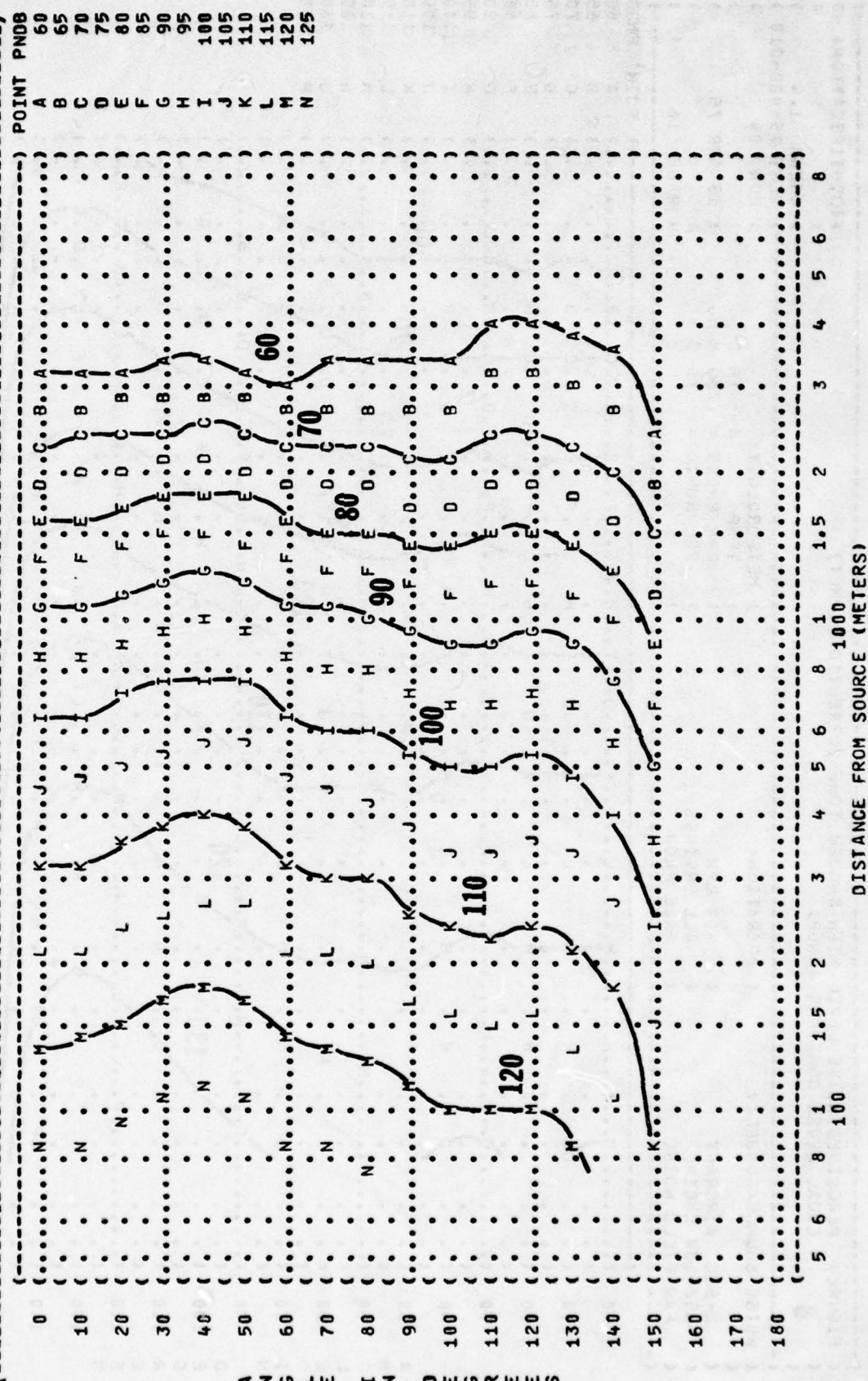
PAGE 16

POINT	PNUB
A	60
B	65
C	70
D	75
E	80
F	85
G	90
H	95
I	100
J	105
K	110
L	115
M	120
N	125

ANGLE IN DEGREES

DISTANCE FROM SOURCE (METERS)

((FIGURE: PERCEIVED NOISE LEVEL WITH SMOOTH TONE CORRECTION {PNLT}
 ((8 EQUAL LEVEL CONTOURS (PNDB)
 (() IDENTIFICATION:
 (() OMEGA 1.4
 (() TEST 75-002-010
 (() RUN 03
 (() METEOROLOGY:
 (() TEMP = 15 C
 (() BAR PRESS = .760 M HG
 (() REL HUMID = 70 %
 (() 15 APR 75
 (() PAGE 16
 (() NOISE SOURCE/SUBJECT:
 (() OPERATION:
 (() 80% RPM
 (() ALL ENGINES
 (() FREE FLOW
 (() B-52G AIRCRAFT
 (() J57-43W ENGINE
 (() FAR FIELD NOISE



ANGLE IN DEGREES

DISTANCE FROM SOURCE (METERS)

EQUAL LEVEL CONTOURS (PNDB)

0

OPERATIONS

90% RPM
ALL ENGINES
FREE FLOW

TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

OMEGA 1

PNLT3



FIGURE 8: PERCEIVED NOISE LEVEL WITH SMOOTH TONE CORRECTION EQUAL LEVEL CONTOURS (PNDB)

8

NOISE SOURCE/SUBJECT:

(OPERATION:

B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

MILITARY POWER
94% RPM
ALL ENGINES
FREE FLOW

● METEOROLOGY:

TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

OMEGA 1.4

TEST 75-002-010

RUN 05

15 APR 75

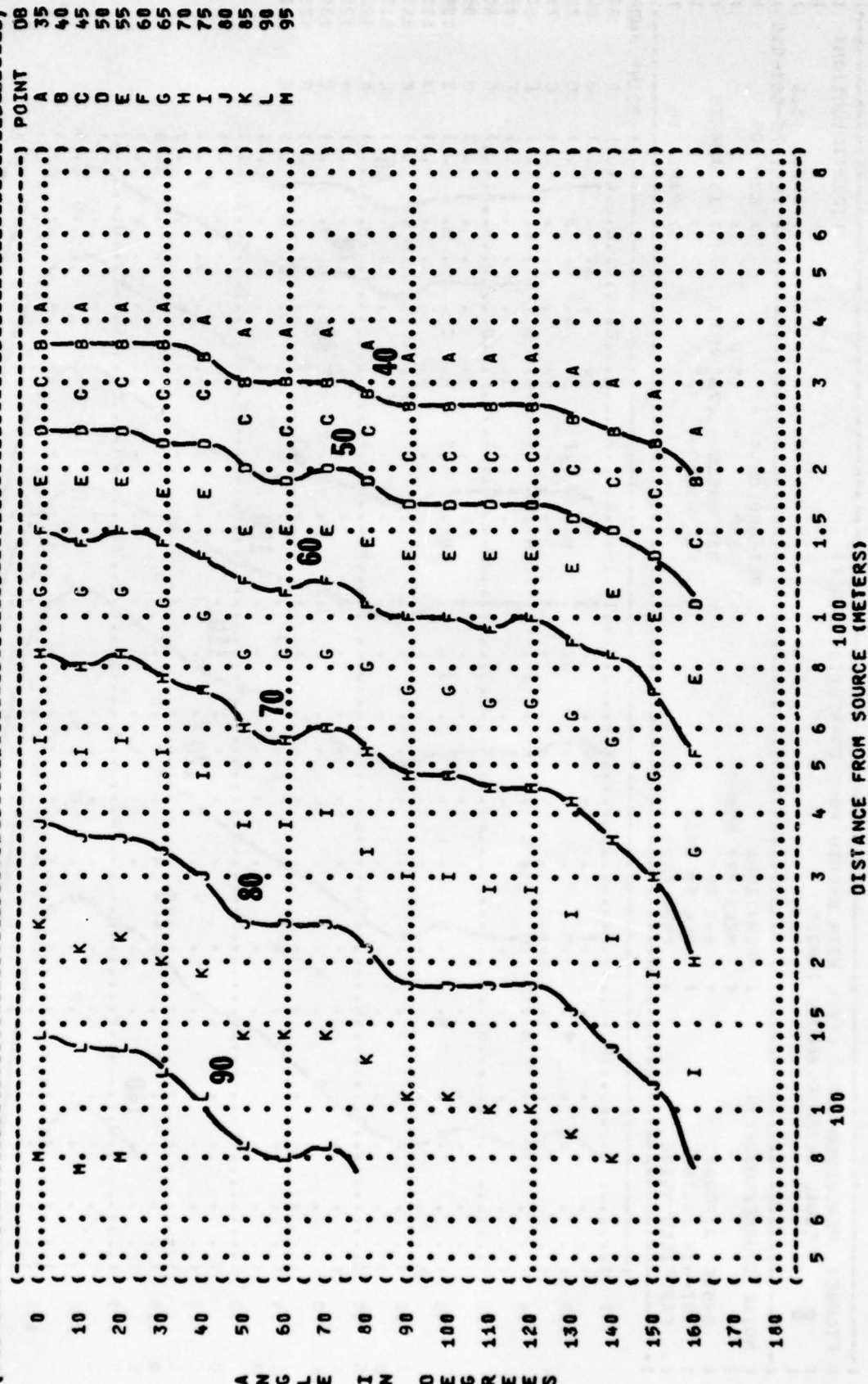
PAGE 16

Figure 1 is a grid map showing the location of 140 points (A to Q) used for the study. The grid is defined by latitude (0 to 80 degrees) and longitude (60 to 140 degrees). Points are marked with letters and numbers, and some are connected by lines to form a network. The map includes a dashed line representing the equator and a solid line representing the 180-degree meridian.

ANGLE IN DEGREES

DISTANCE FROM SOURCE (METERS)


```
(-----)
( FIGURE: PREFERRED SPEECH INTERFERENCE LEVEL {PSIL} )
(          EQUAL LEVEL CONTOURS   (DB)           )
(          9                        )
(-----)
( NOISE SOURCE/SUBJECT:              )
( ( OPERATION:                       ) METEOROLOGY: )
( ( IDLE POWER                      ) TEMP = 15 C    )
( ( 61% RPM                         ) BAR PRESS = .760 M HG )
( ( ALL ENGINES                     ) REL HUMID = 70 %  )
( ( FREE FLOW                       )                )
(-----)
( IDENTIFICATION:                    )
(                                     ) OMEGA 1.4      )
( TEST 75-002-010                  ) RUN 01        )
(                                     ) 15 APR 75     )
( PAGE 17                          )               )
(-----)
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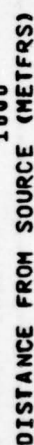
IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 02
15 APR 75
PAGE 17

```

METEOROLOGY:

TEMP = 15 C
BAR PRESS = .760 H HG
REL HUMID = 70 %

15 APR 75
PAGE 17



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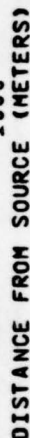
IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 03
15 APR 75
PAGE 17

```

9) METEOROLOGY:

TEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

15 APR 75
PAGE 17



IDENTIFICATIONS

OMEGA 1.4

METEOROLOGY:

RUN 04

TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

PAGE 17

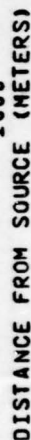
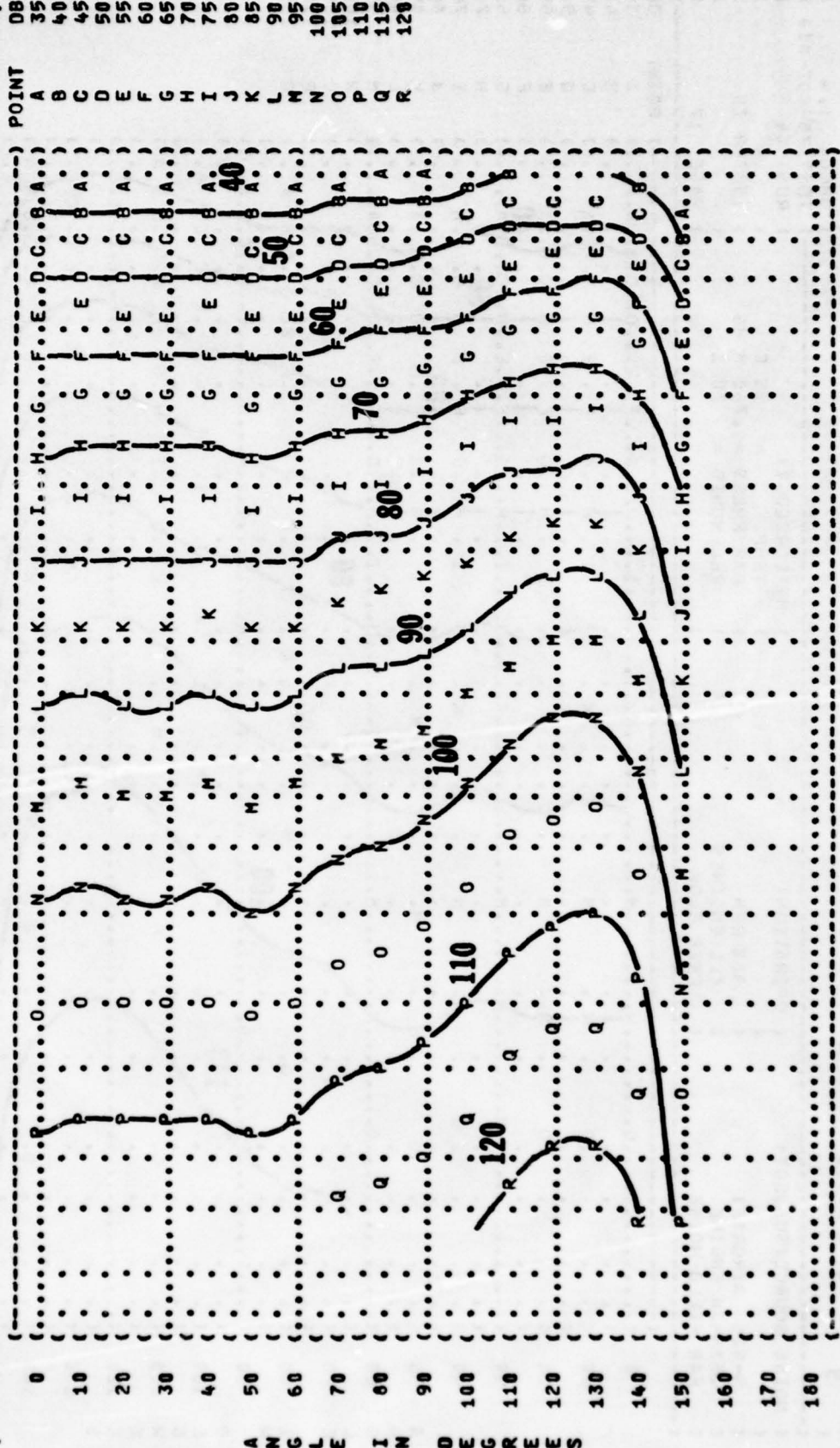


FIGURE: PREFERRED SPEECH INTERFERENCE LEVEL (PSIL)
 9
 IDENTIFICATION:
 OMEGA 1.4
 TEST 75-002-010
 RUN 05
 15 APR 75
 PAGE 17

NOISE SOURCE/SUBJECT: (OPERATION:) METEOROLOGY:
 (MILITARY POWER) TEMP = 15 C
 (94% RPM) BAR PRESS = .760 M HG
 (ALL ENGINES) REL HUMID = 70 %
 (FREE FLOW)



POINT
 A B C D E F G H I J K L M N O P Q R
 DB
 35
 40
 45
 50
 55
 60
 65
 70
 75
 80
 85
 90
 95
 100
 105
 110
 115
 120

5 6 8 1 1.5 2 3 4 5 6 8
 100
 1000
 DISTANCE FROM SOURCE (METERS)

A N G L E I N D E C R E E S

FIGURE: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)

IDENTIFICATION:

10 EQUAL TIME CONTOURS (MINUTES)

NO PROTECTION

NOISE SOURCE/SUBJECT:

OPERATION:

TEMP = 15 C

BAR PRESS = .760 M HG

REL HUMID = 70 %

METEOROLOGY:

OMEGA 1.4

TEST 75-002-010

RUN 01

15 APR 75

PAGE 7

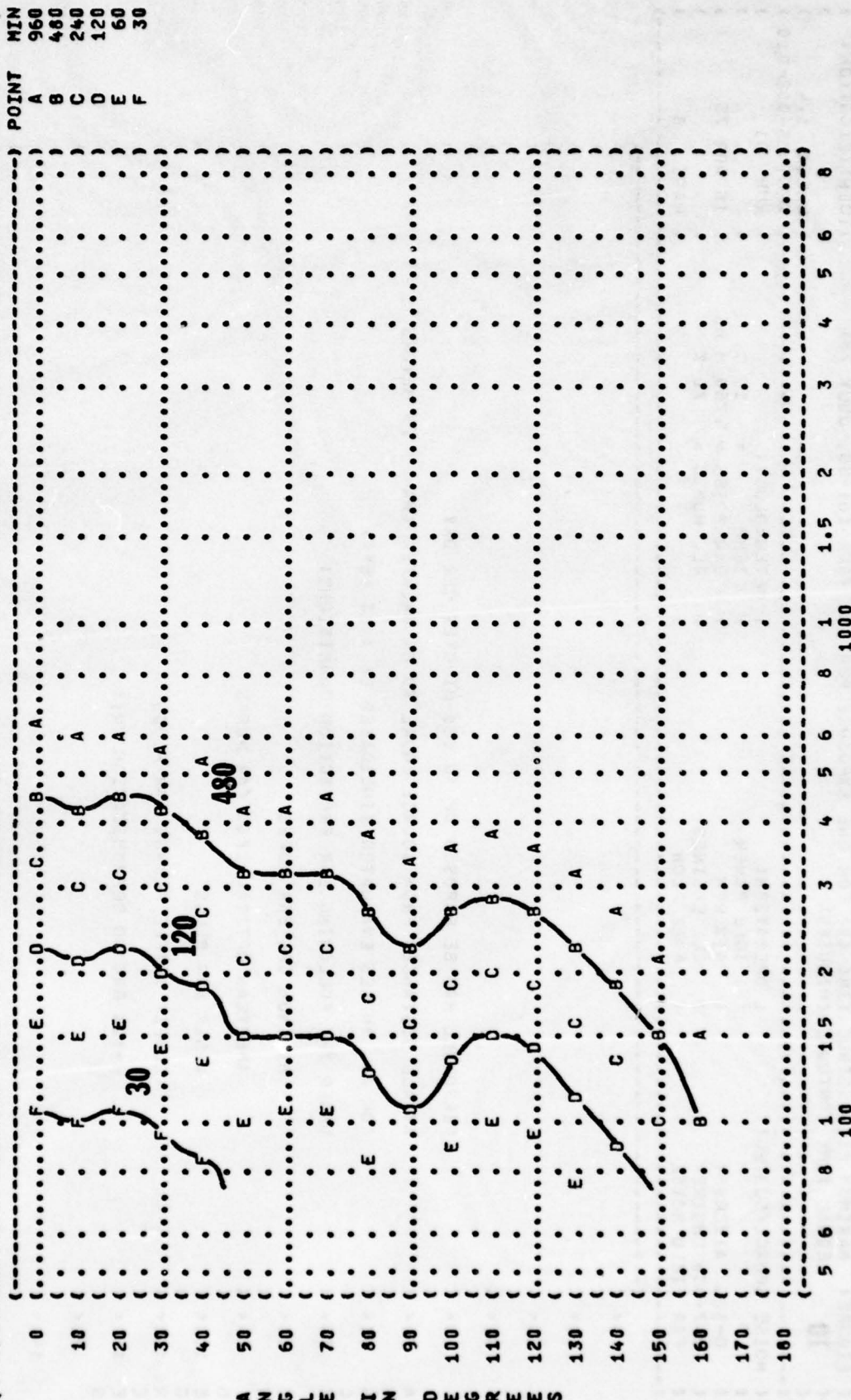


FIGURE: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)

IDENTIFICATION:

10

NOISE SOURCE/SUBJECT: (OPERATION:) METEOROLOGY:) OMEGA 1.4

((IDLE POWER))) TEST 75-002-010

((61% RPM))) RUN 01

((ALL ENGINES))) 15 APR 75

((FREE FLOW))) PAGE 8

PERSONNEL MAY BE EXPOSED UP TO 960 MINUTES PER DAY

AT ALL DISTANCES FROM SOURCE EQUAL TO OR GREATER THAN 75 METERS

FOR ALL ANGLES EVALUATED (INDICATED BY < AT LEFT)

UNDER THE FOLLOWING EAR PROTECTION CONDITIONS:

MINIMUM QPL EAR MUFFS

AMERICAN OPTICAL 1700 EAR MUFFS

V-51R EAR PLUGS

COMFIT TRIPLE FLANGE EAR PLUGS

H-133 GROUND COMMUNICATION UNIT

5 6 8 1 1.5 2 3 4 5 6 8

100

DISTANCE FROM SOURCE (METERS)

	(	-	-	-	-	-	)	MIN	POINT
0	(	.	.	.	.	.	)	A	960
	(	.	.	.	.	.	)	B	480
10	(	.	.	.	.	.	)	C	240
	(	.	.	.	.	.	)	D	120
20	(	.	.	.	.	.	)	E	60

FIGURE: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)

IDENTIFICATION:

10

OMEGA 1.4

TEST 75-002-010

RUN 02

15 APR 75

PAGE 10

NOISE SOURCE/SUBJECT:

OPERATION:

90% RPM ENGINE NO. 4

TEMP = 15 C

IDLE POWER

BAR PRESS = .760 M HG

61% RPM ALL OTHER ENGINES

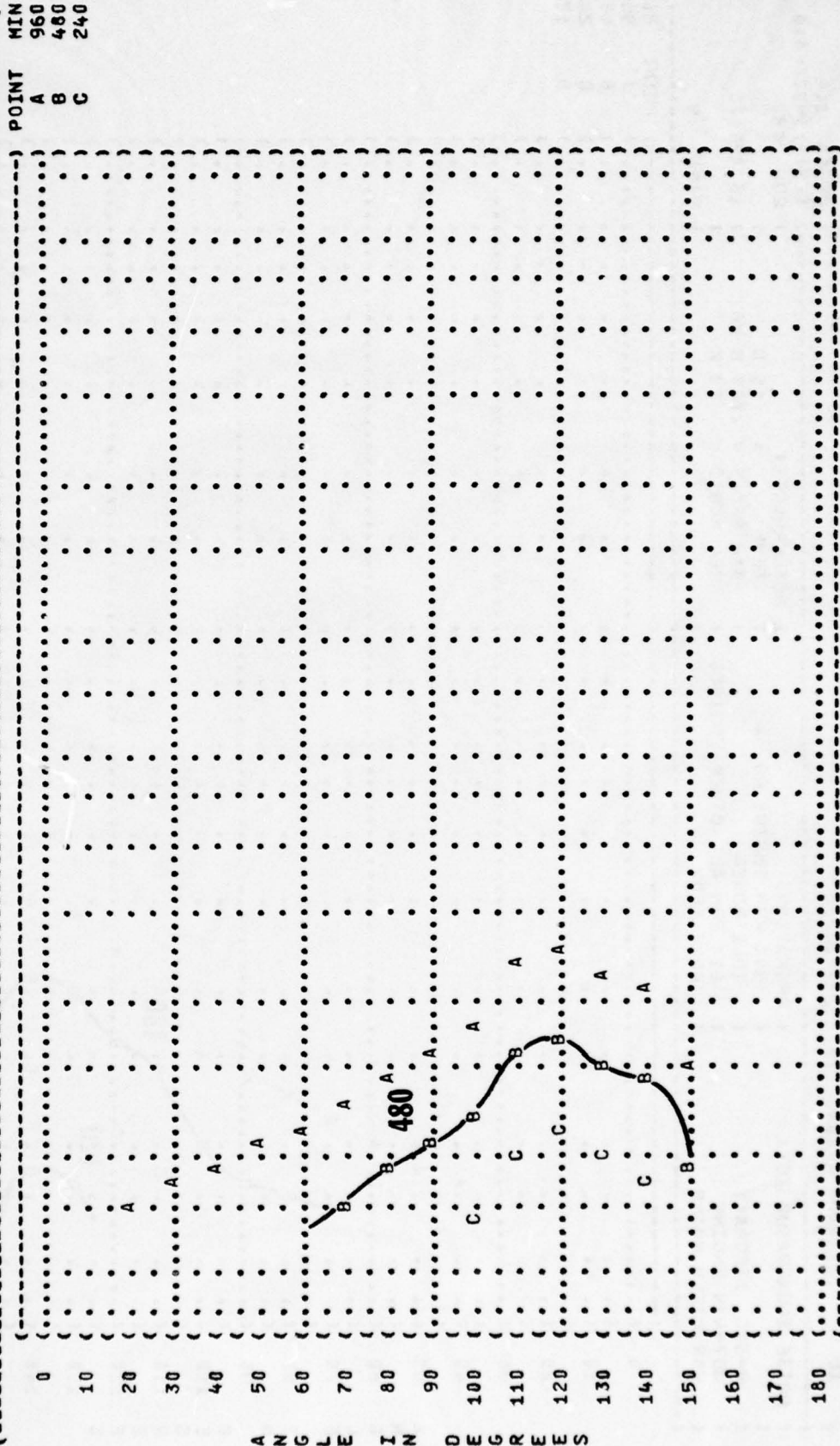
REL HUMID = 70 %

FREE FLOW

B-52G AIRCRAFT

J57-43M ENGINE

FAR FIELD NOISE



ANGLE IN DEGREES

0

10

20

30

40

50

60

70

80

90

100

110

120

130

140

150

160

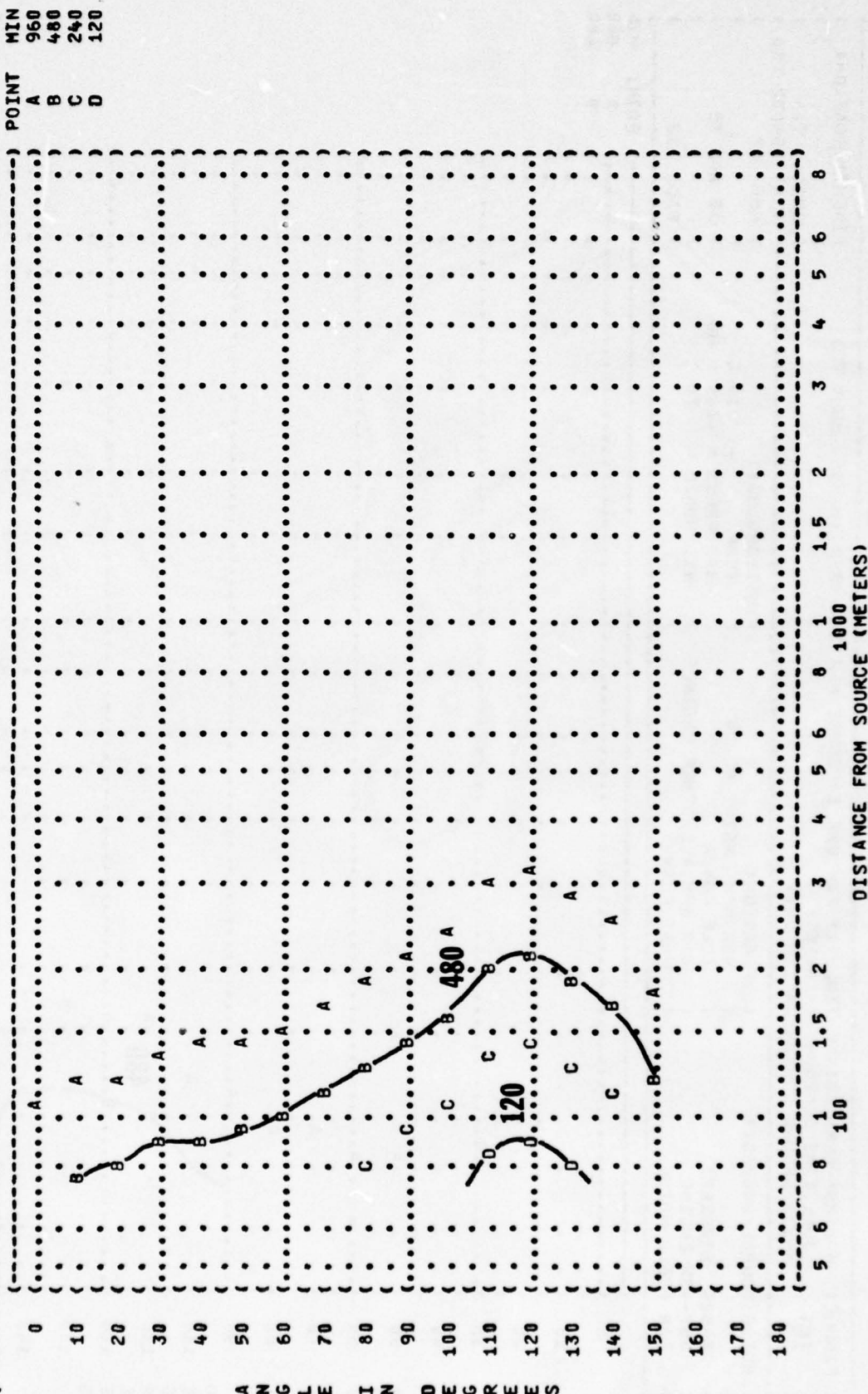
170

180

DISTANCE FROM SOURCE (METERS)

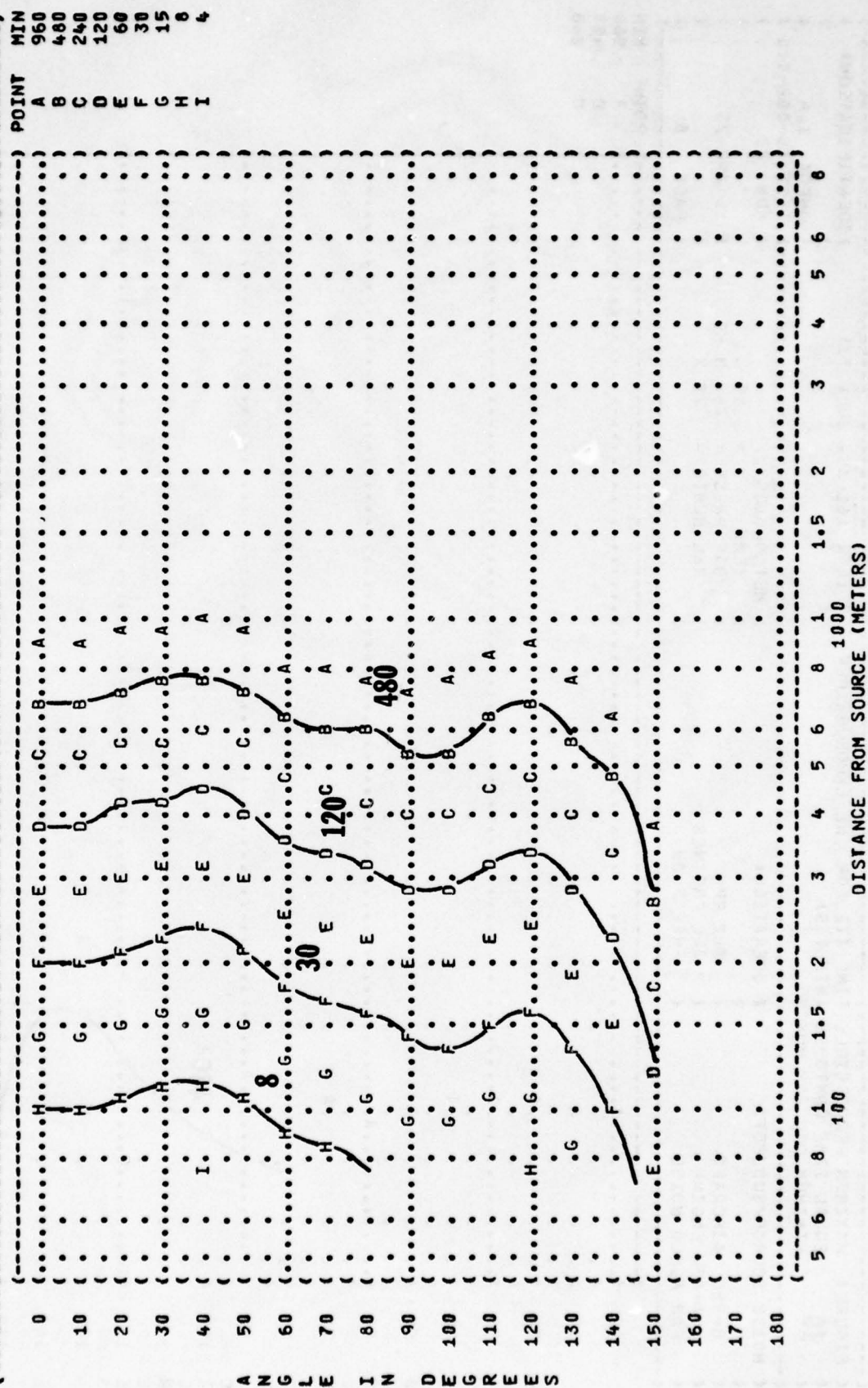
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(FIGURE: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)) IDENTIFICATION:)
 (10 EQUAL TIME CONTOURS (MINUTES)))
 (COMFIT TRIPLE FLANGE EAR PLUGS))
 (NOISE SOURCE/SUBJECT:) OPERATION:) METEOROLOGY:)
 ((90% RPM ENGINE NO. 4)) TEMP = 15 C)
 ((IDLE POWER)) BAR PRESS = .760 M HG)
 ((61% RPM ALL OTHER ENGINES)) REL HUMID = 70 %)
 ((FREE FLOW)))
 (B-52G AIRCRAFT))
 (J57-43M ENGINE)) 15 APR 75)
 (FAR FIELD NOISE)) PAGE 11)



A N G L E I N D E G R E E S

FIGURE:	MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)	IDENTIFICATION:
10	EQUAL TIME CONTOURS (MINUTES)	
	NO PROTECTION	OMEGA 1.4
		TEST 75-002-010
		RUN 03
	NOISE SOURCE/SUBJECT:	METEOROLOGY:
		TEMP = 15 C
	B-52G AIRCRAFT	BAR PRESS = .760 M HG
	J57-43M ENGINE	REL HUMID = 70 %
	FAR FIELD NOISE	PAGE 7

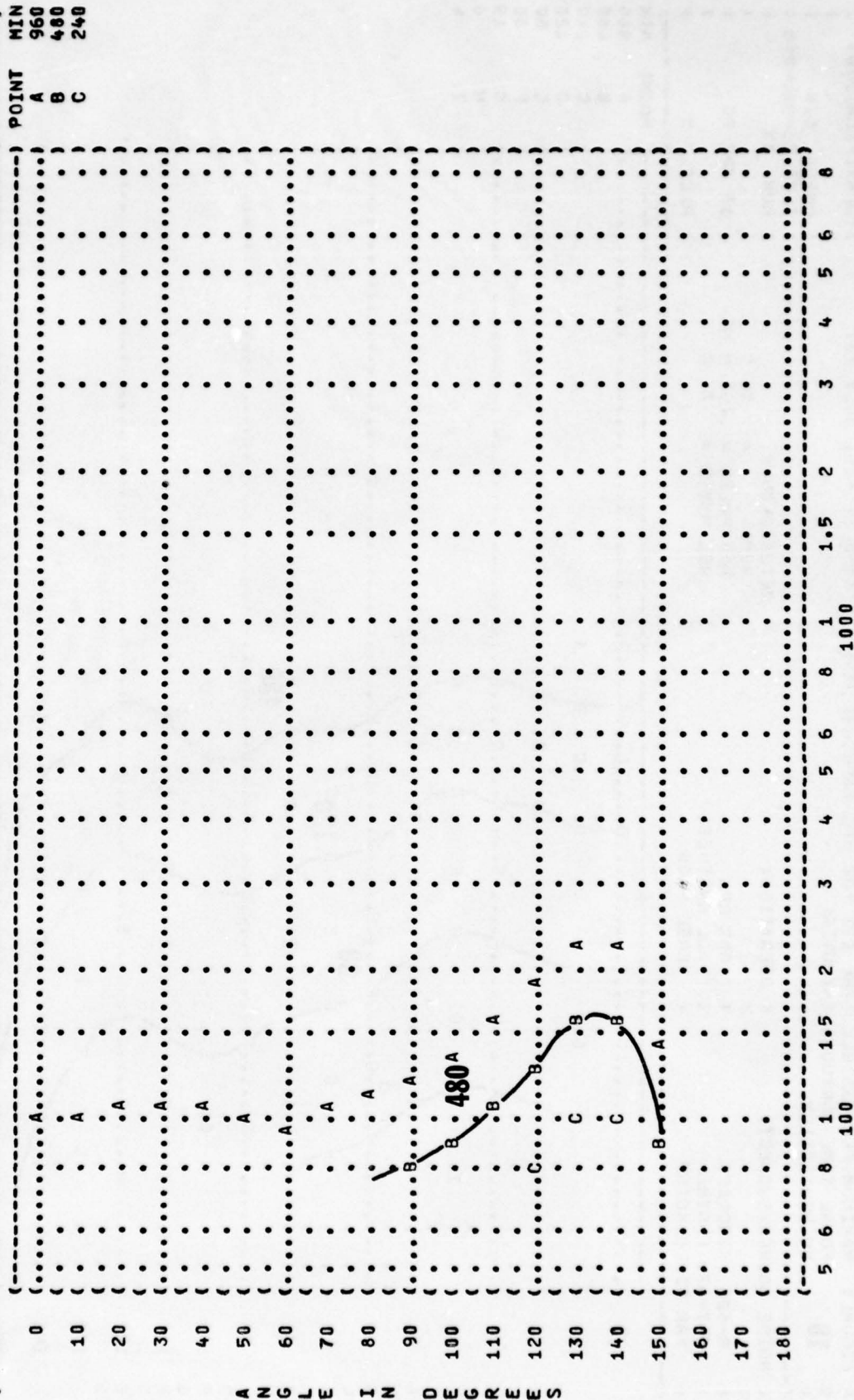


ANGLE IN DEGREES

FIGURE: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
 10
 EQUAL TIME CONTOURS (MINUTES)
 MINIMUM QPL EAR MUFFS

IDENTIFICATION:	
	OMEGA 1.4

```
NOISE SOURCE/SUBJECT:      ) OPERATION:      ) METEOROLOGY:
(                               ) TEMP = 15 C
(                               ) BAR PRESS = .760 M HG
(                               ) REL HUMID = 70 %
(                               )
(                               ) ALL ENGINES
(                               ) FREE FLOW
(                               )
(                               ) PAGE 8
(                               ) RUN 03
```



	(-----)	MIN	POINT
0	(.....A.....)	A	960
	(.....B.....)	B	480
10	(.....A.....)	C	240

The map displays a grid of points labeled A through J. The vertical axis represents distance in miles (0 to 180), and the horizontal axis represents distance from the source in meters (5 to 18). Contour lines are drawn and labeled with values 2.2, 8, 30, 120, and 480. The points are distributed across the grid, with some points having multiple labels (e.g., A, B, C, D, E, F, G, H, I, J). The map is oriented with the source at the bottom right corner.

P ADDITIONAL EAR PROTECTION REQUIRED.

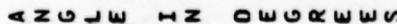
FIGURE: MAXIMUM PERMISSIBLE TIME {T} FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
10 EQUAL TIME CONTOURS (MINUTES)
 AMERICAN OPTICAL 1700 EAR MUFFS
 IDENTIFICATIONS:
)
) OMEGA 1.4

(OPERATION:

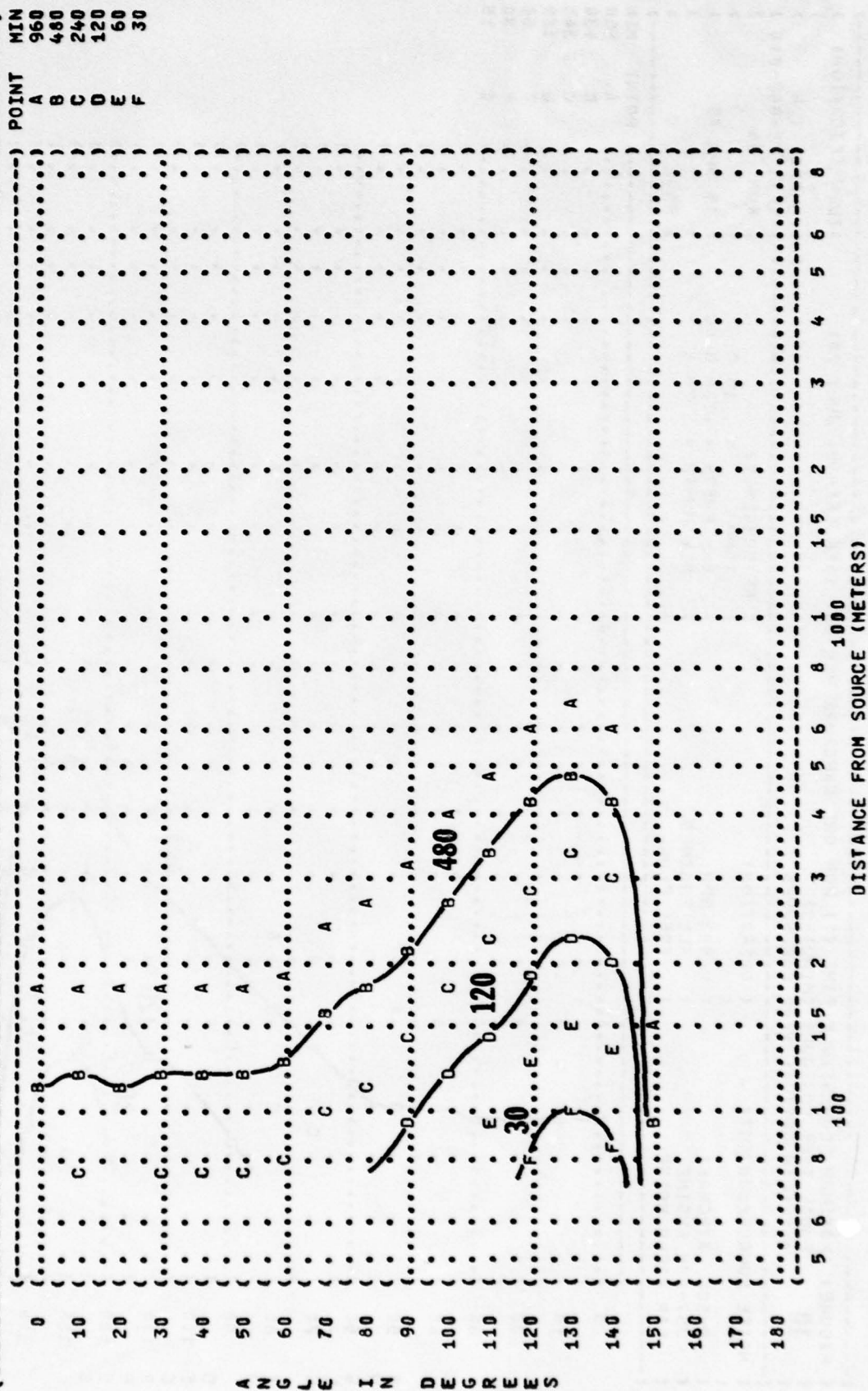
**90% RPM
ALL ENGINES
FREE FLOW**

TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

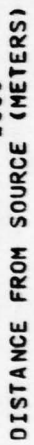
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```
(-----)
( FIGURE: MAXIMUM PERMISSIBLE TIME {T} FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73) ) IDENTIFICATION: )
(    10      EQUAL TIME CONTOURS (MINUTES) ) )
(    V-51R EAR PLUGS ) OMEGA 1.4 )
( ) TEST 75-002-010 )
( NOISE SOURCE/SUBJECT: ) METEOROLOGY: ) RUN 04 )
( ) TEMP = 15 C ) )
( B-52G AIRCRAFT ) BAR PRESS = .760 M HG ) 15 APR 75 )
( J57-43W ENGINE ) ALL ENGINES ) )
( FAR FIELD NOISE ) FREE FLOW ) PAGE 10 )
(-----)
```



MIN
960
480
240
120
60
30
15



```
(-----)
( FIGURE: MAXIMUM PERMISSIBLE TIME {T} FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73) ) IDENTIFICATION:
( EQUAL TIME CONTOURS (MINUTES) ) )
( 10 ) OMEGA 1.4
( H-133 GROUND COMMUNICATION UNIT ) TEST 75-002-010
( NOISE SOURCE/SUBJECT: ) OPERATION: ) METEOROLOGY:
( ) ) TEMP = 15 C
( B-52G AIRCRAFT ) 90% RPM ) BAR PRESS = .760 M HG
( J57-43W ENGINE ) ALL ENGINES ) REL HUMID = 70 %
( FAR FIELD NOISE ) FREE FLOW ) PAGE 12
(-----)
```

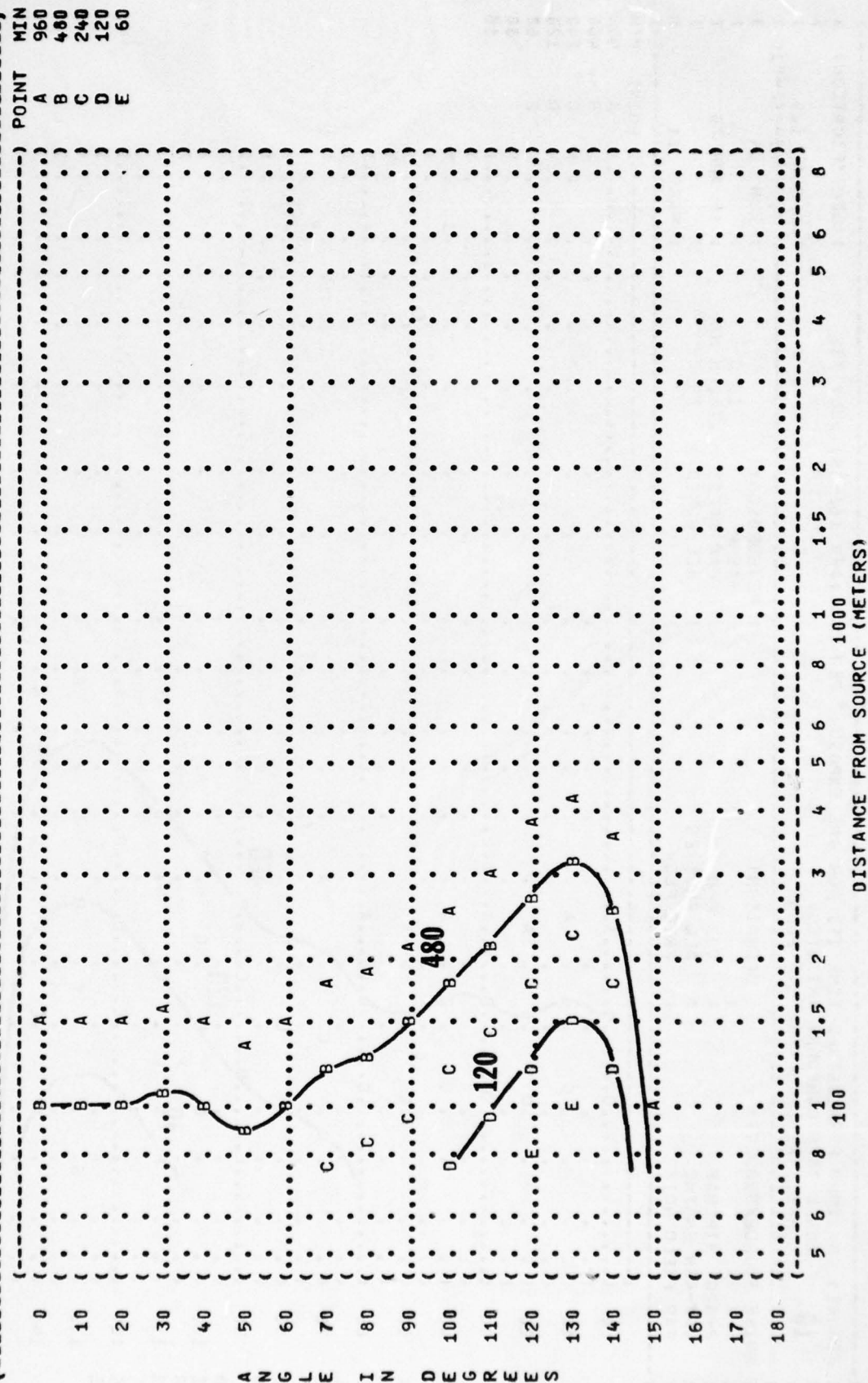


FIGURE: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)

IDENTIFICATION:

10 EQUAL TIME CONTOURS (MINUTES)

NO PROTECTION

NOISE SOURCE/SUBJECT:

OPERATION:

MILITARY POWER

TEMP = 15 C

BAR PRESS = .760 M HG

REL HUMID = 70 %

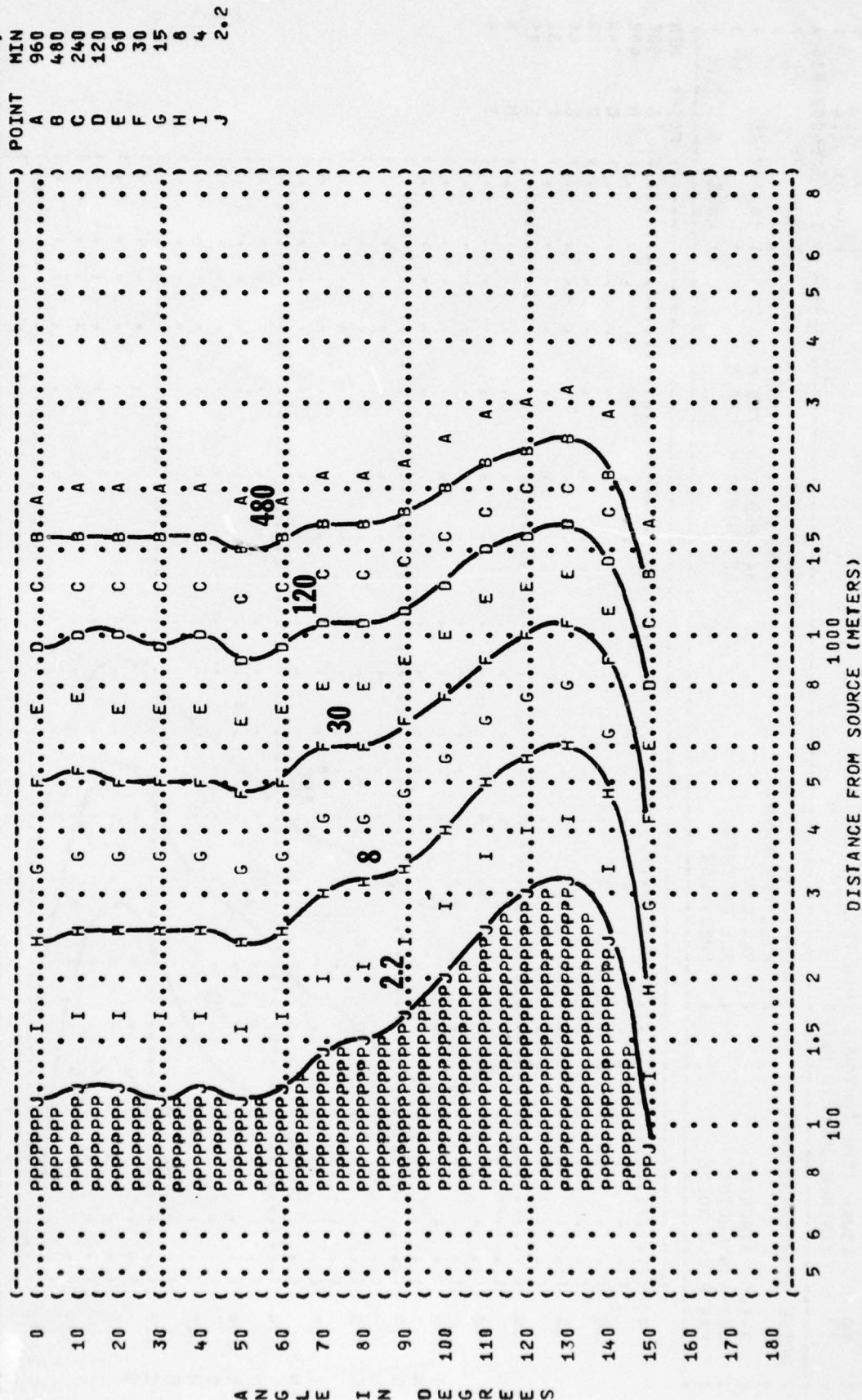
15 APR 75

OMEGA 1.4

TEST 75-002-010

RUN 05

PAGE 7



P ADDITIONAL EAR PROTECTION REQUIRED.

FIGURE:	MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)	IDENTIFICATION:
10	EQUAL TIME CONTOURS (MINUTES)	
	AMERICAN OPTICAL 1700 EAR MUFFS	OMEGA 1.4
		TEST 75-002-010
	NOISE SOURCE/SUBJECT:	RUN 05
	(OPERATION:	METEOROLOGY:
	(MILITARY POWER	TEMP = 15 C
	(94% RPM	BAR PRESS = .760 M HG
	(ALL ENGINES	REL HUMID = 70 %
	(FREE FLOW	
	8-52G AIRCRAFT	15 APR 75
	J57-43W ENGINE	
	FAR FIELD NOISE	PAGE 9

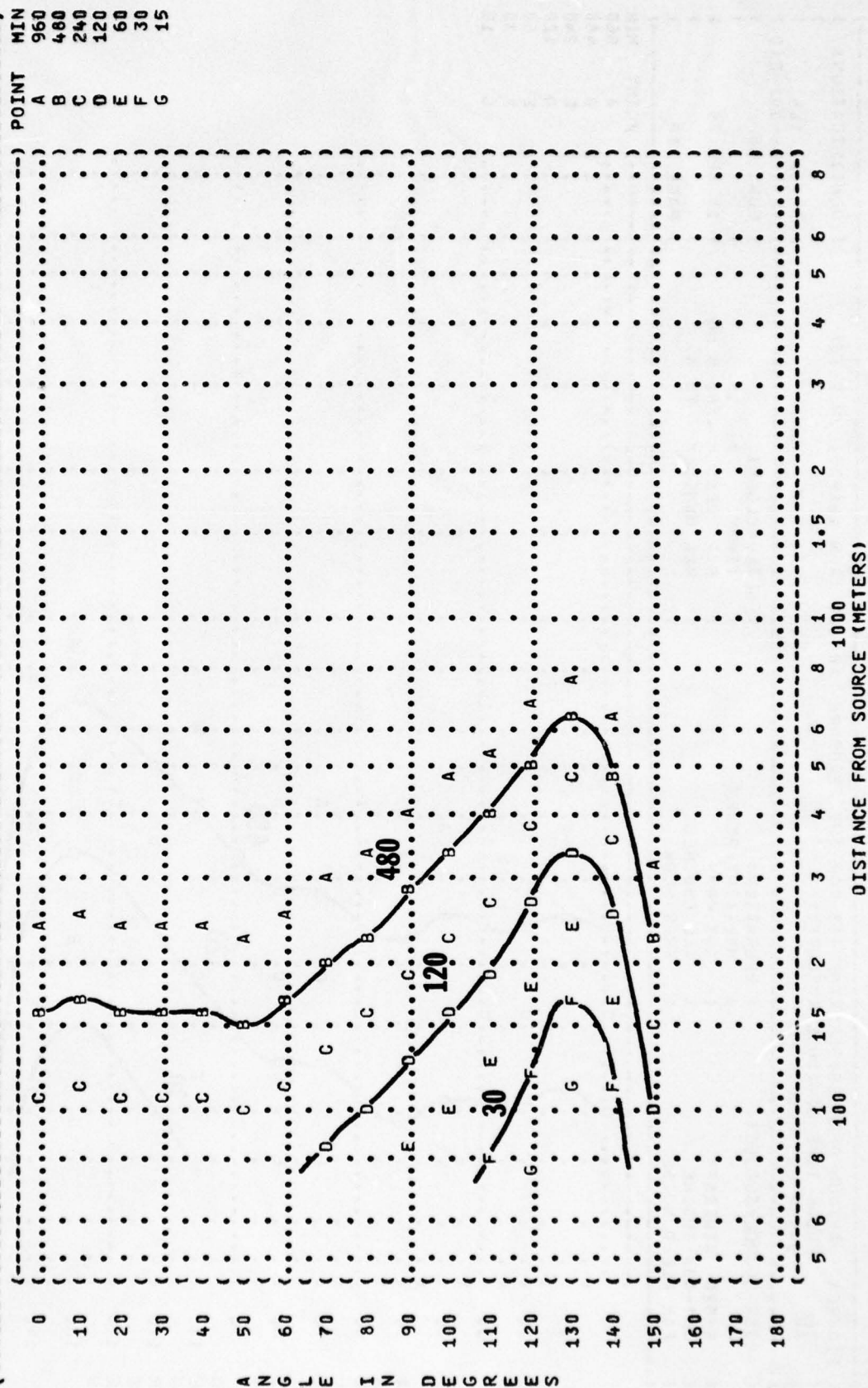


FIGURE: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)

IDENTIFICATION:

10

EQUAL TIME CONTOURS (MINUTES)

V-51R EAR PLUGS

NOISE SOURCE/SUBJECT:

OPERATION:

MILITARY POWER

94% RPM

ALL ENGINES

FREE FLOW

METEOROLOGY:

TEMP = 15 C

BAR PRESS = .760 M HG

REL HUMID = 70 %

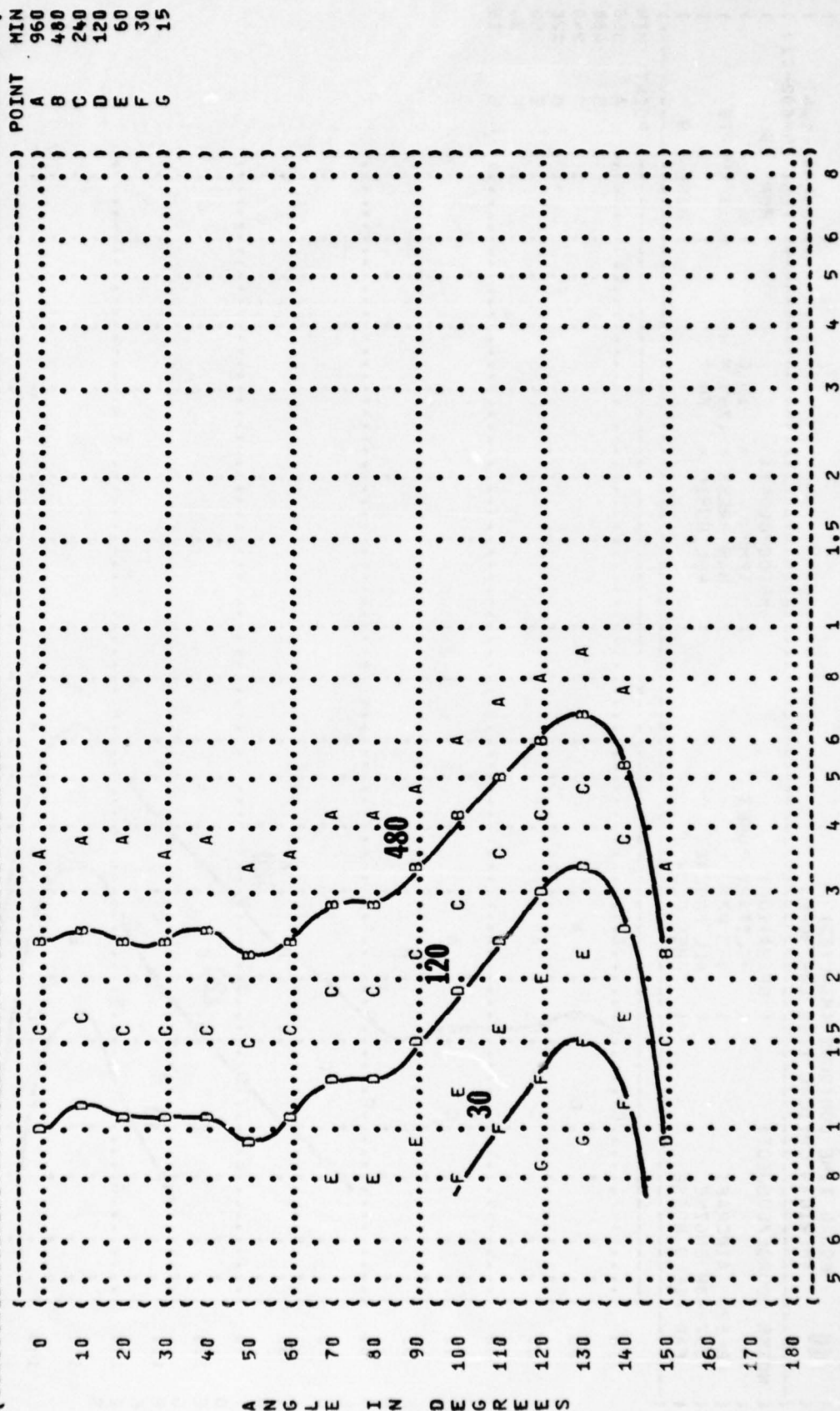
OMEGA 1.4

TEST 75-002-010

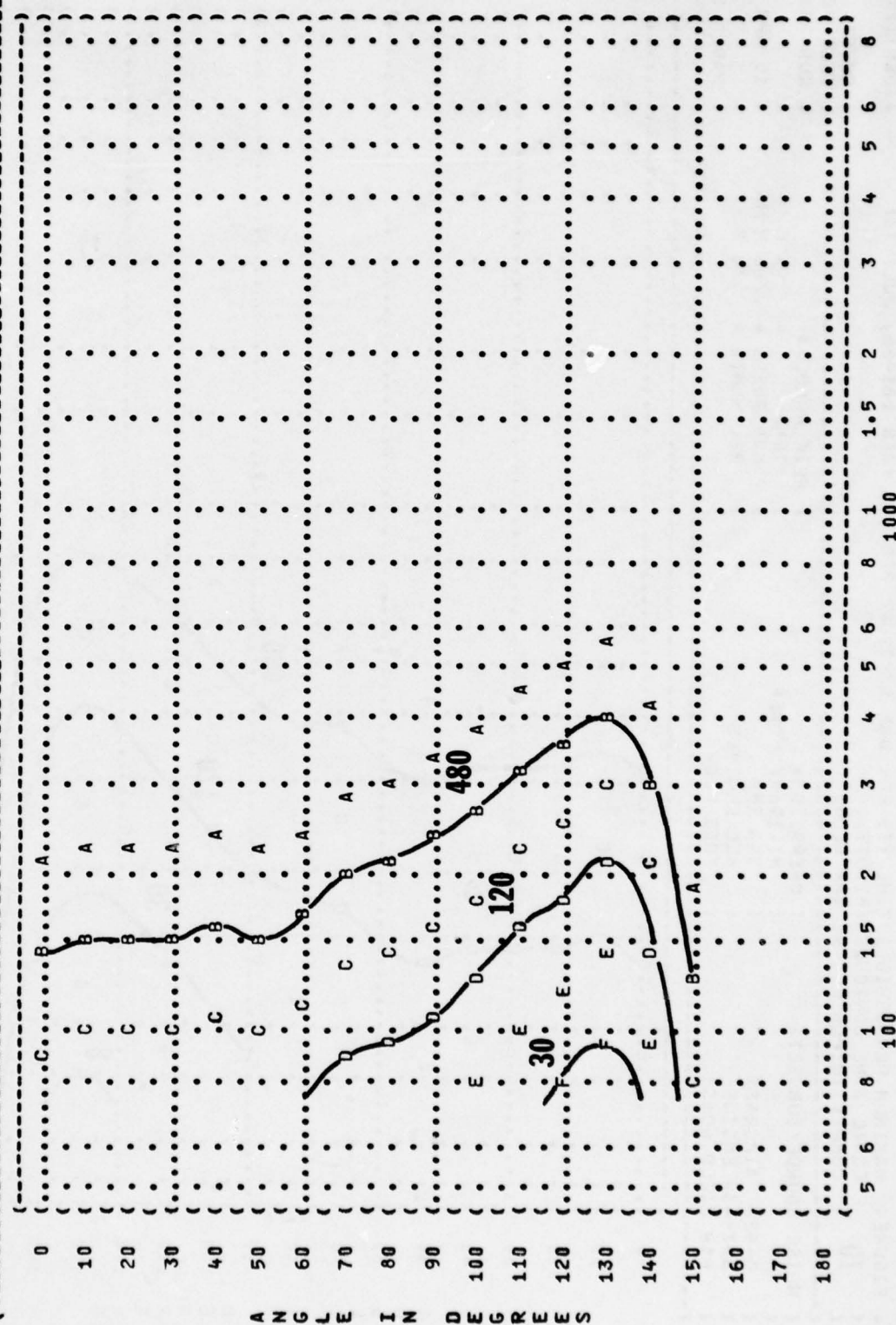
RUN 05

15 APR 75

PAGE 10



POINT	MIN
A	960
B	480
C	240
D	120
E	60
F	30



DISTANCE FROM SOURCE (METERS)

FIGURE: SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
31.5 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010

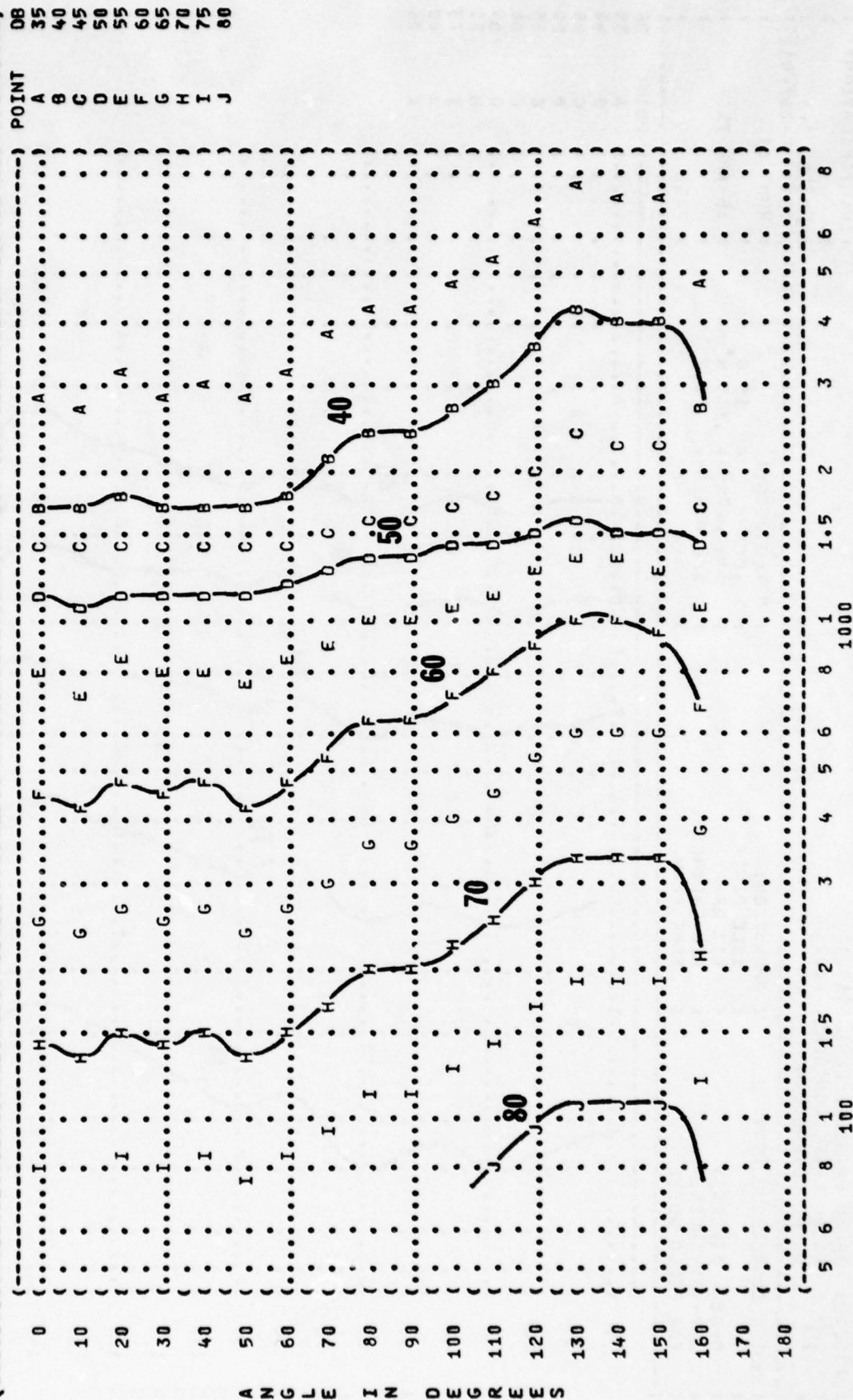
NOISE SOURCE/SUBJECT:

OPERATION:
IDLE POWER
61% RPM
ALL ENGINES
FREE FLOW

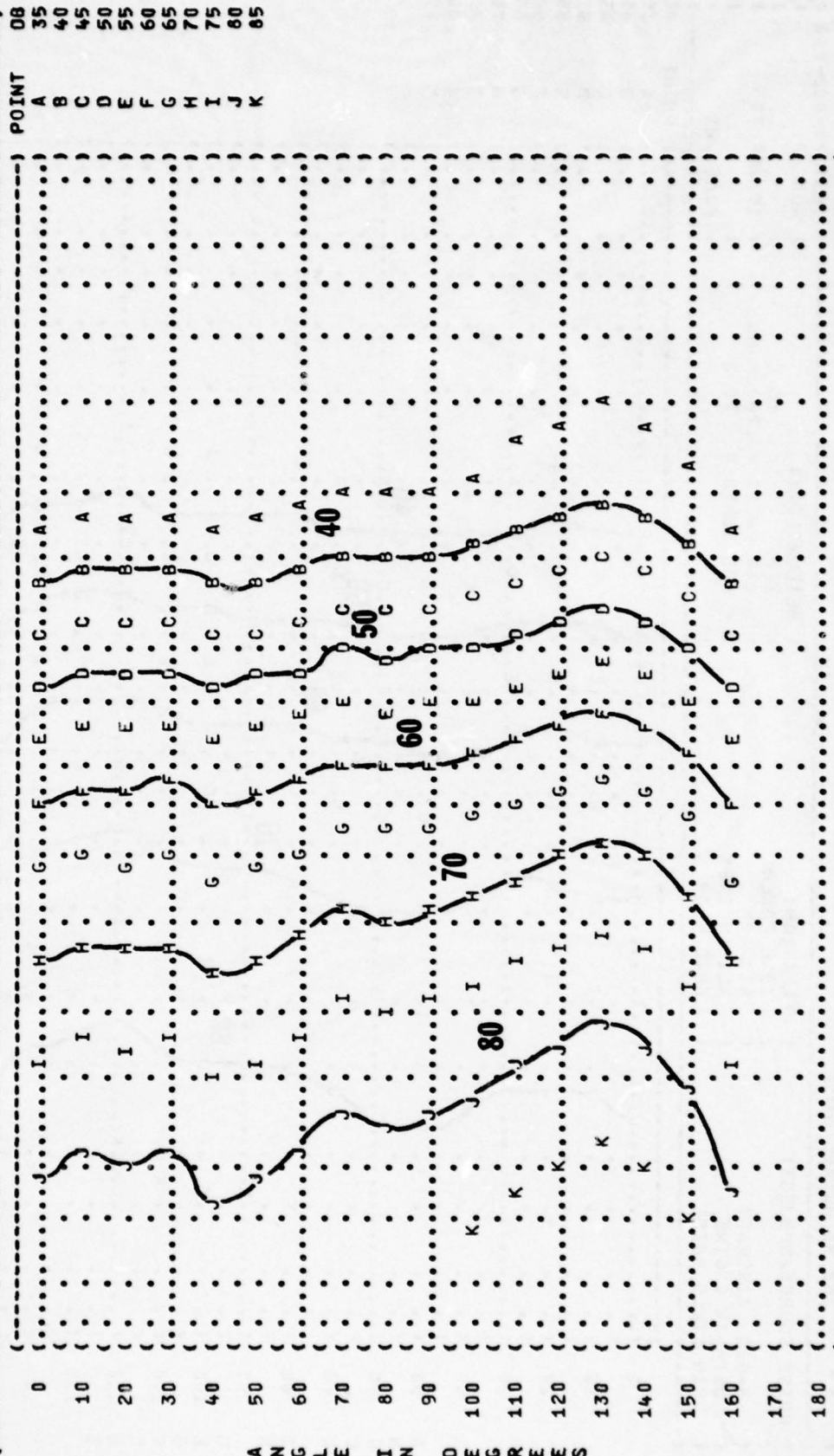
METEOROLOGY:

TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

PAGE 18



(FIGURE: SOUND PRESSURE LEVEL {SPL}
 (11 EQUAL LEVEL CONTOURS (DB)
 (125 HZ OCTAVE BAND
 (NOISE SOURCE/SUBJECT: (OPERATION:
 ((IDLE POWER
 ((61% RPM
 ((ALL ENGINES
 ((FREE FLOW
 (NOISE SOURCE/SUBJECT: (METEOROLOGY:
 ((TEMP = 15 C
 ((BAR PRESS = .760 M HG
 ((REL HUMID = 70 %
 ((PAGE 20
 (IDENTIFICATION:
 (OMEGA 1.4
 (TEST 75-002-010
 (RUN 01
 (15 APR 75
 ()



08 35 40 45 50 55 60 65 70 75 80 85
 POINT
 A B C D E F G H I J K
 5 6 8 1 1.5 2 3 4 5 6 8
 100 1000
 DISTANCE FROM SOURCE (METERS)

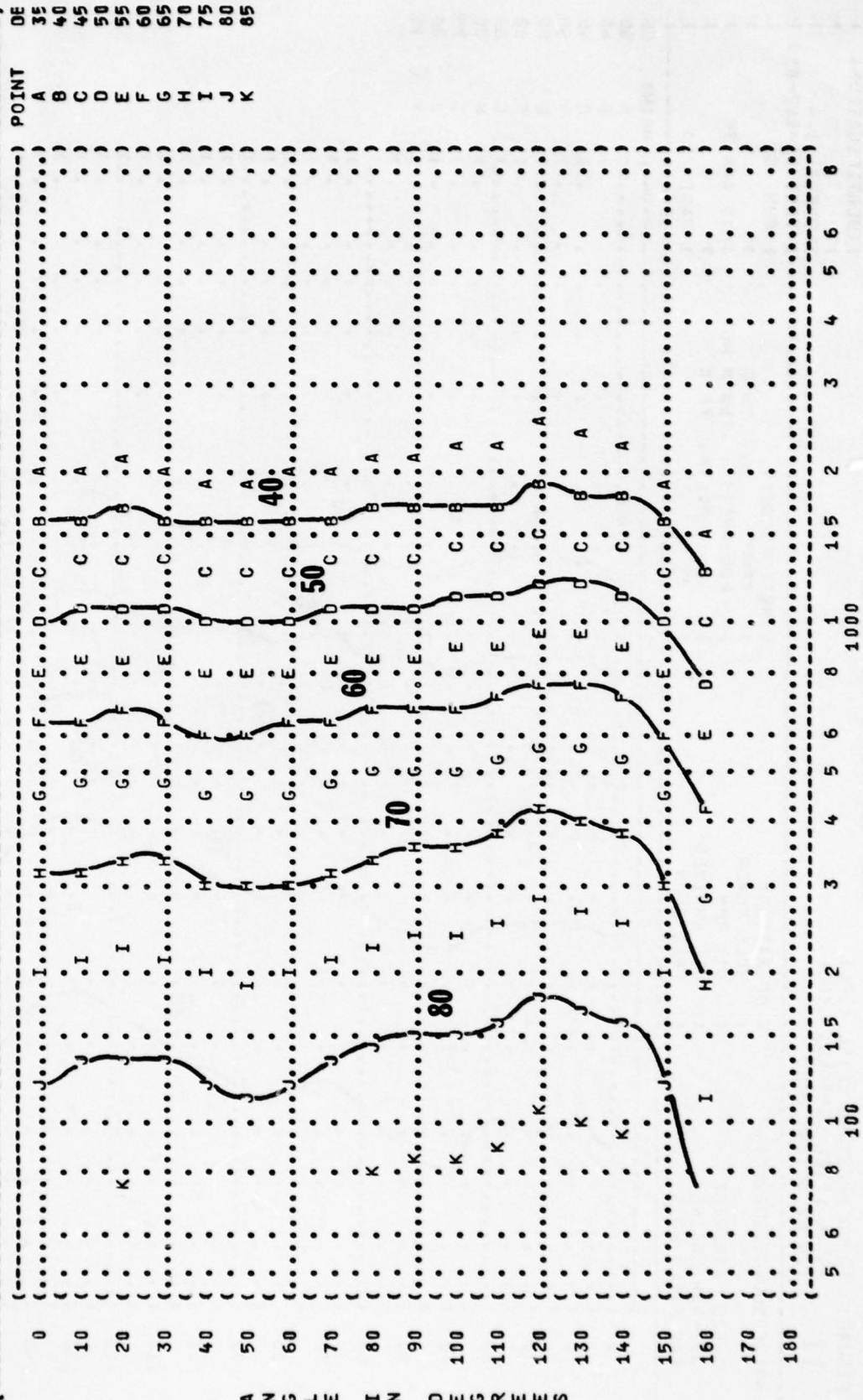
A N G L E I N D E G R E E S

IDENTIFICATION: OMEGA 1.4
 TEST 75-002-010
 RUN 01
 15 APR 75
 PAGE 21

NOISE SOURCE/SUBJECT:

- OPERATION:
 - IDLE POWER
 - 61% RPM
 - ALL ENGINES
 - FREE FLOW
- METEOROLOGY:
 - TEMP = 15 C
 - BAR PRESS = .760 M HG
 - REL HUMID = 70 %

B-52G AIRCRAFT
 J57-43M ENGINE
 FAR FIELD NOISE



A N G L E I N D E G R E E S

FIGURE: SOUND PRESSURE LEVEL (SPL)
 11 EQUAL LEVEL CONTOURS (DB)
 500 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT: () OPERATION:
 () B-52G AIRCRAFT () IDLE POWER
 () J57-43W ENGINE () 61% RPM
 () FAR FIELD NOISE () ALL ENGINES
 () () FREE FLOW

METEOROLOGY:
 () TEMP = 15 C
 () BAR PRESS = .760 M HG
 () REL HUMID = 70 %

IDENTIFICATION:
 () OMEGA 1.4
 () TEST 75-002-010
 () RUN 01
 () 15 APR 75
 () PAGE 22

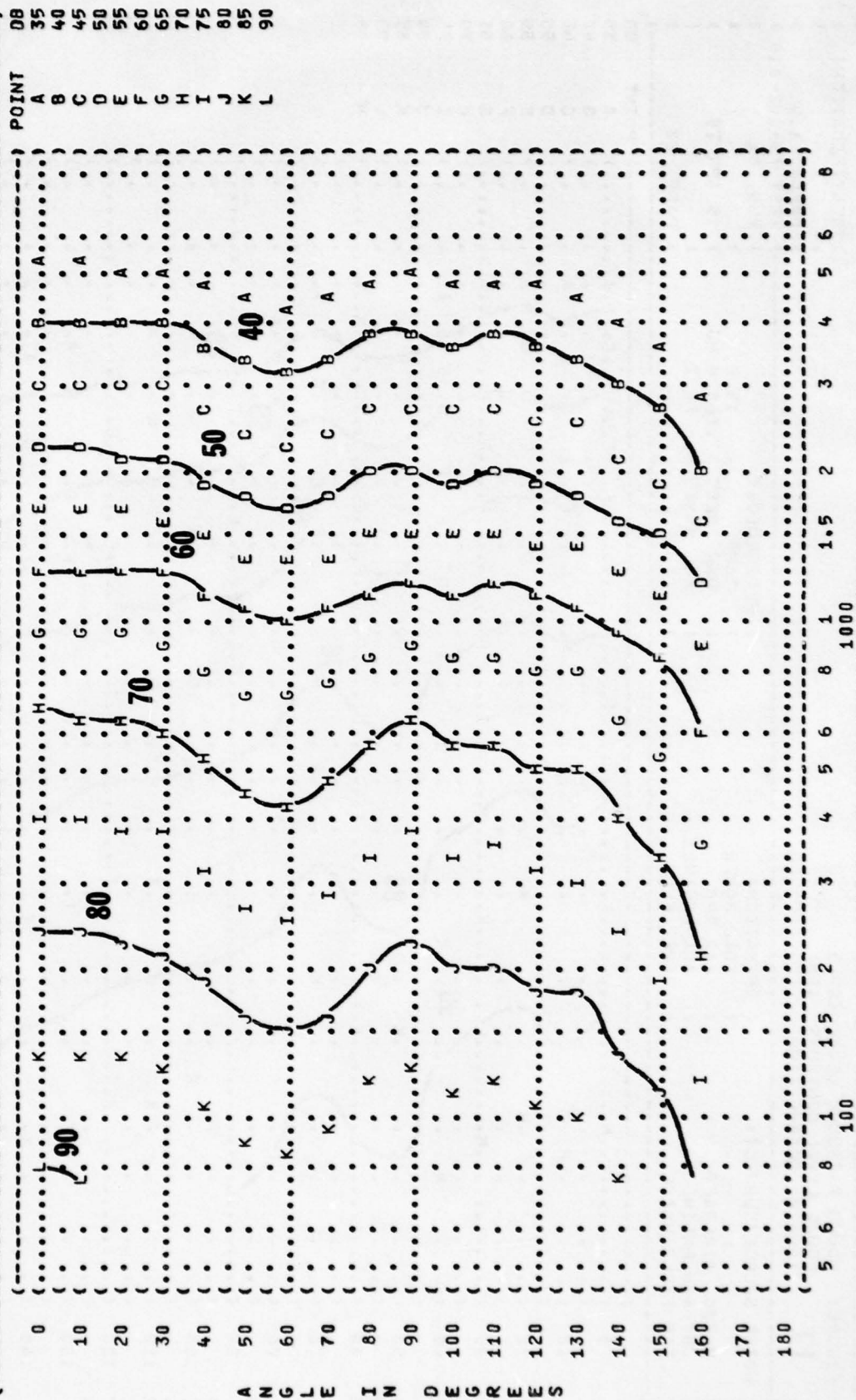


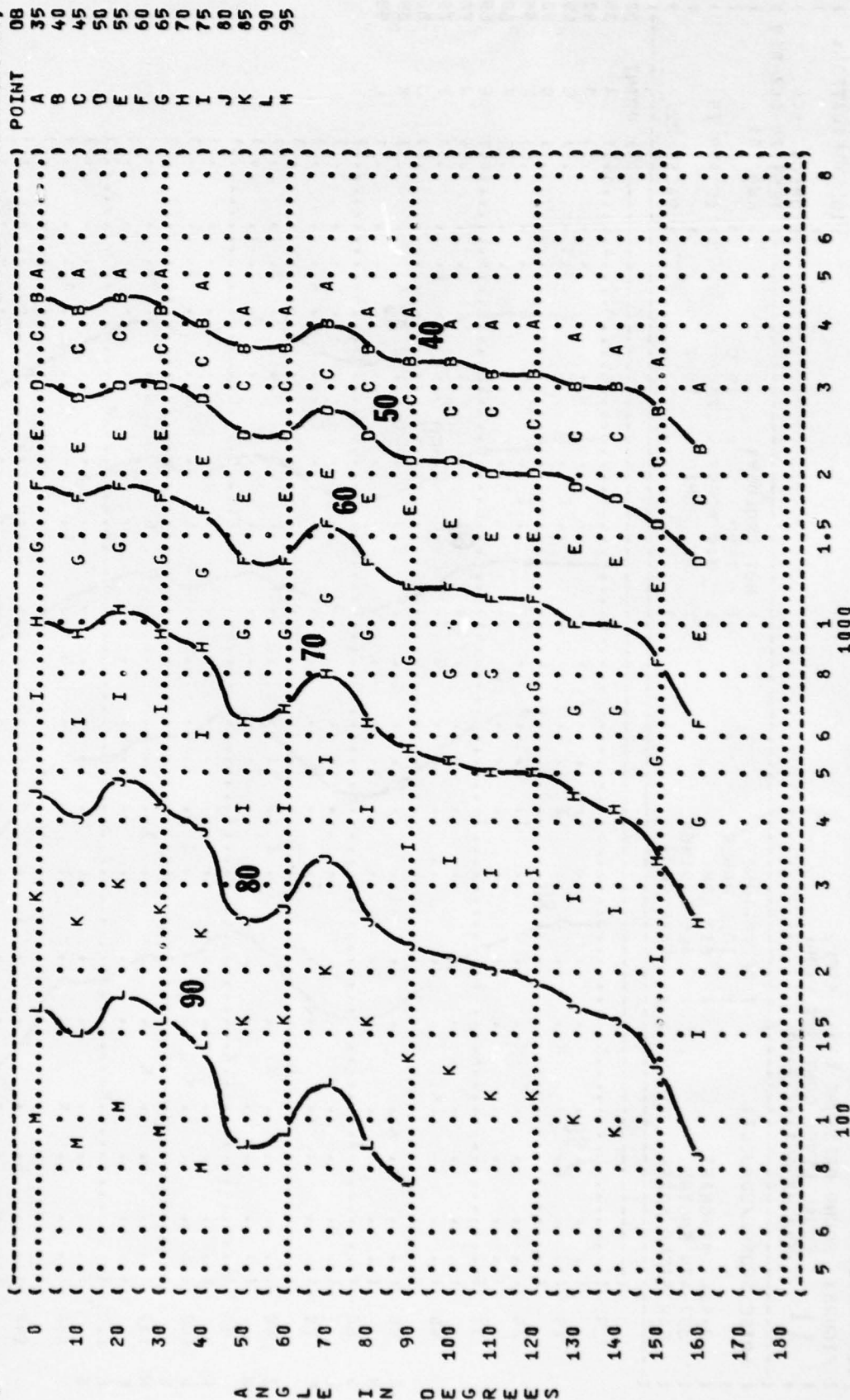
FIGURE 11
SOUND PRESSURE LEVEL {SPL}
EQUAL LEVEL CONTOURS (DB)
1000 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-011
RUN 01
15 APR 75
PAGE 23

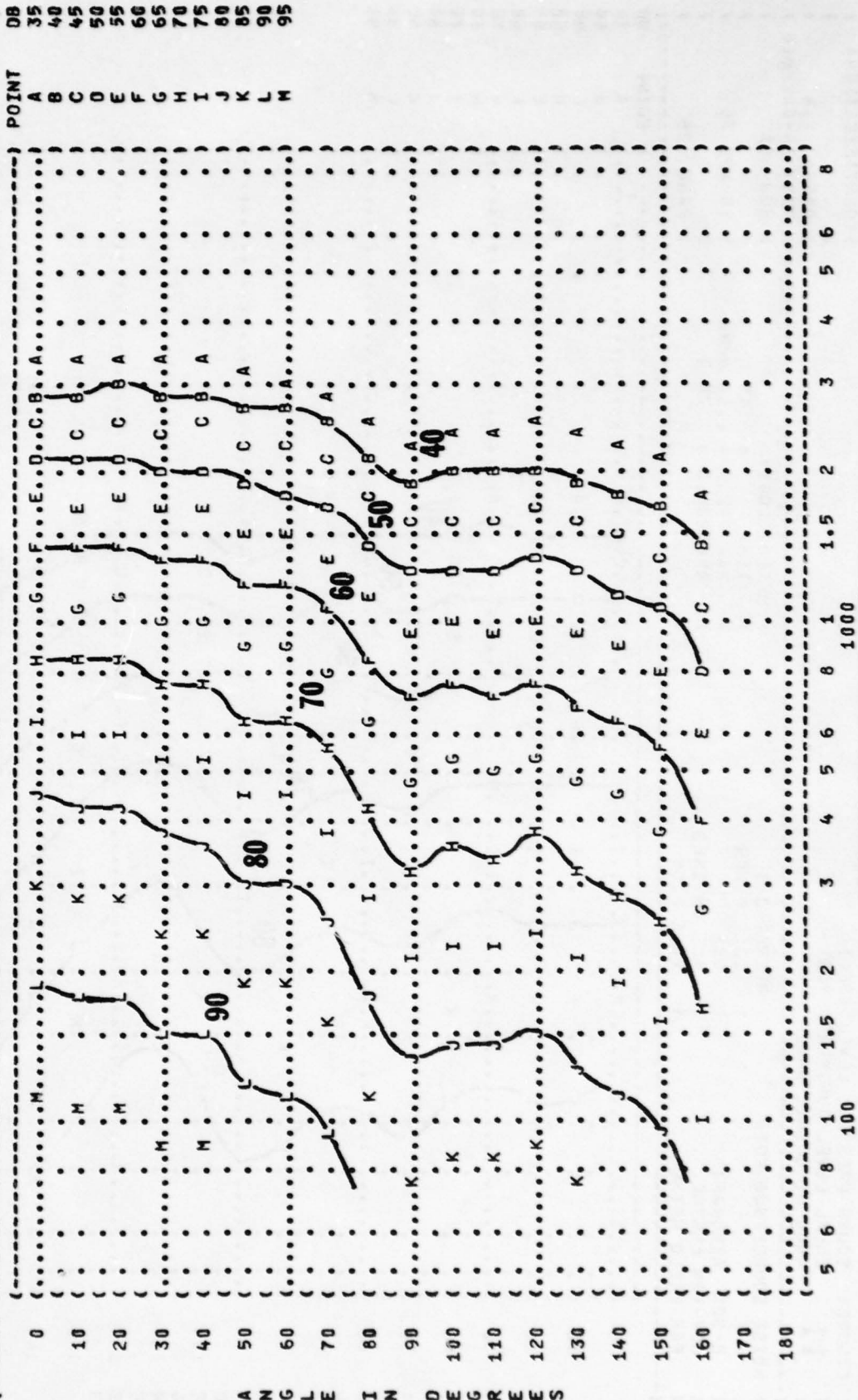
TEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

(OPERATION:
(IDLE POWER
(61% RPM
(ALL ENGINES
(FREE FLOW

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE



(FIGURE: SOUND PRESSURE LEVEL (SPL)
 (11 EQUAL LEVEL CONTOURS (DB)
 (2000 HZ OCTAVE BAND
 (NOISE SOURCE/SUBJECT:
 ((OPERATION:
 ((IDLE POWER
 ((61% RPM
 ((ALL ENGINES
 ((FREE FLOW
 (B-52G AIRCRAFT
 (J57-43M ENGINE
 (FAR FIELD NOISE
 (METEOROLOGY:
 (TEMP = 15 C
 (BAR PRESS = .760 M HG
 (REL HUMID = 70 %
 (IDENTIFICATION:
 (OMEGA 1.4
 (TEST 75-002-010
 (RUN 01
 (15 APR 75
 (PAGE 24
 (POINT DB



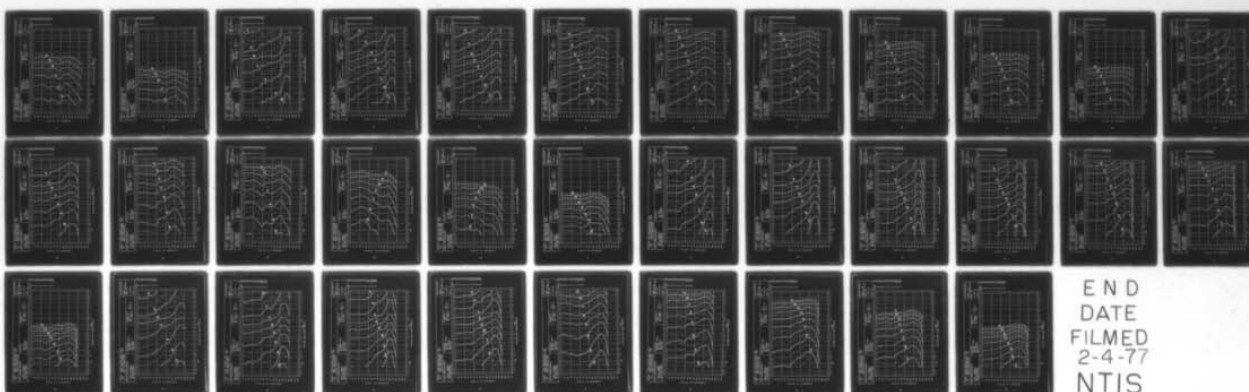
DISTANCE FROM SOURCE (METERS)

AEROSPACE MEDICAL RESEARCH LAB WRIGHT-PATTERSON AFB OHIO F/G 1/3
USAF BIOENVIRONMENTAL NOISE DATA HANDBOOK, VOLUME 64, B-52G AIR--ETC(U)
NOV 75 R G POWELL

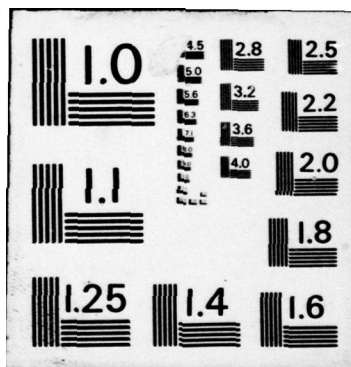
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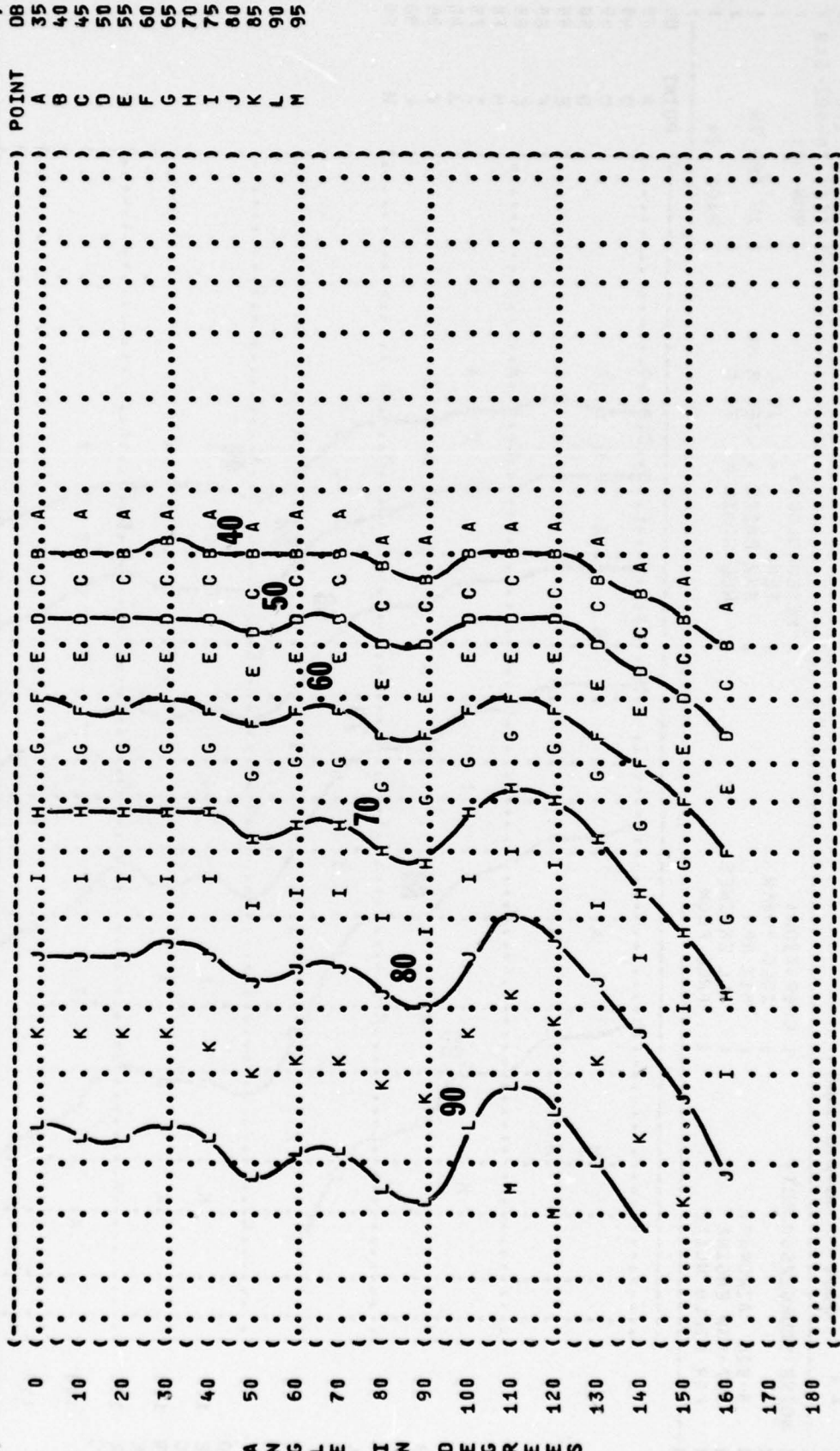
2 OF 2
AD-A
033 643



END
DATE
FILMED
2-4-77
NTIS



(FIGURE: SOUND PRESSURE LEVEL (SPL)
 (11 EQUAL LEVEL CONTOURS (DB)
 (4000 HZ OCTAVE BAND
 (NOISE SOURCE/SUBJECT:
 (B-52G AIRCRAFT
 (J57-43M ENGINE
 (FAR FIELD NOISE
 (OPERATION:
 (IDLE POWER
 (61% RPM
 (ALL ENGINES
 (FREE FLOW
 (METEOROLOGY:
 (TEMP = 15 C
 (BAR PRESS = .760 M HG
 (REL HUMID = 70 %
 (IDENTIFICATION:
 (OMEGA 1.4
 (TEST 75-002-010
 (RUN 01
 (15 APR 75
 (PAGE 25



5 6 8 1 1.5 2 100 1000 8
 DISTANCE FROM SOURCE (METERS)

(FIGURE: SOUND PRESSURE LEVEL (SPL))
 (11 EQUAL LEVEL CONTOURS (DB))
 (8000 HZ OCTAVE BAND)
 (NOISE SOURCE/SUBJECT:)
 (8-52G AIRCRAFT)
 (J57-43M ENGINE)
 (FAR FIELD NOISE)
 (OPERATION:)
 (IDLE POWER)
 (61% RPM)
 (ALL ENGINES)
 (FREE FLOW)
 (METEOROLOGY:)
 (TEMP = 15 C)
 (BAR PRESS = .760 M HG)
 (REL HUMID = 70 %)
 (RUN 01)
 (15 APR 75)
 (PAGE 26)
 (IDENTIFICATION:)
 (OMEGA 1.4)
 (TEST 75-002-010)

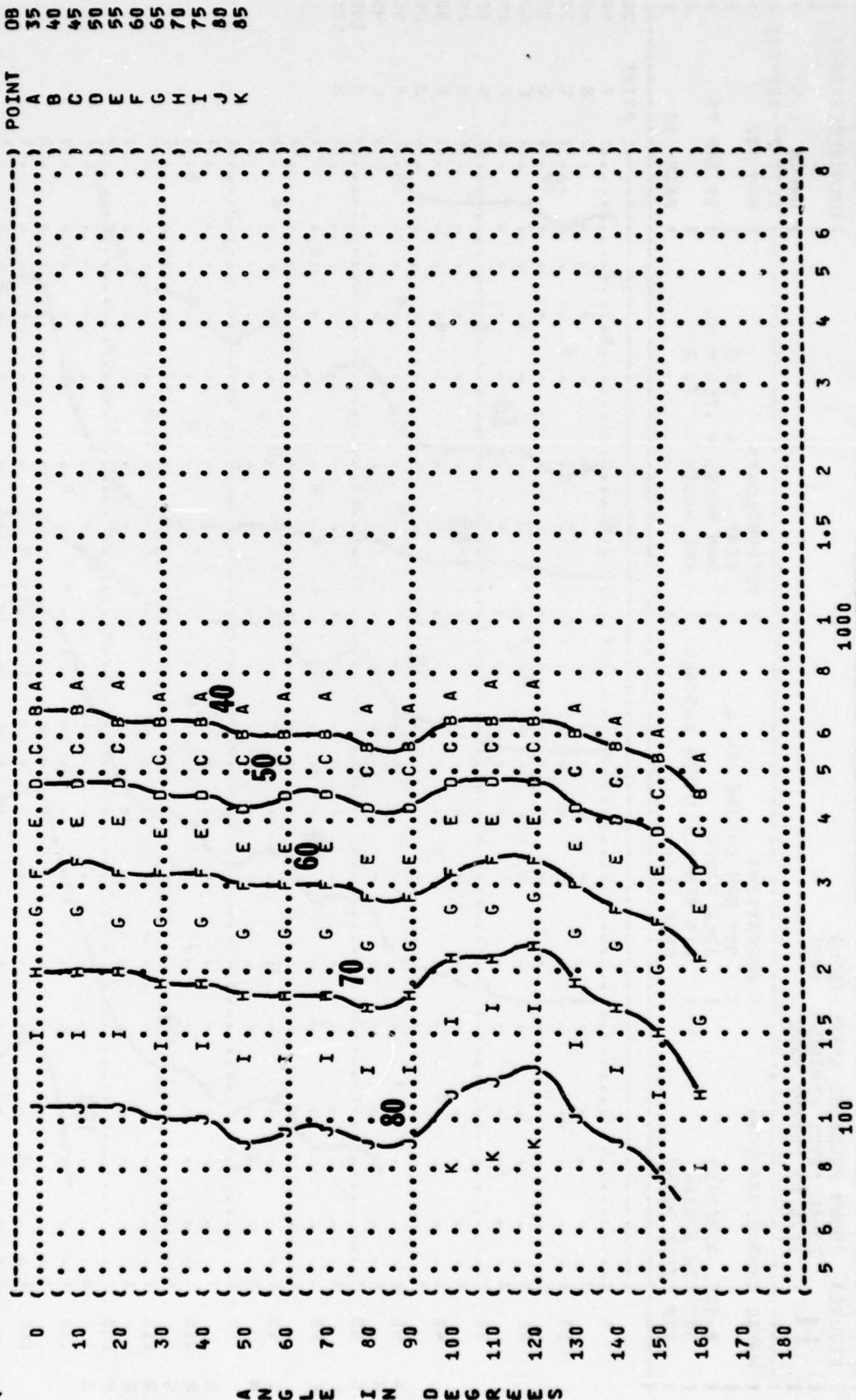


FIGURE: SOUND PRESSURE LEVEL (SPL)
 11 EQUAL LEVEL CONTOURS (DB)
 31.5 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:

OPERATION:

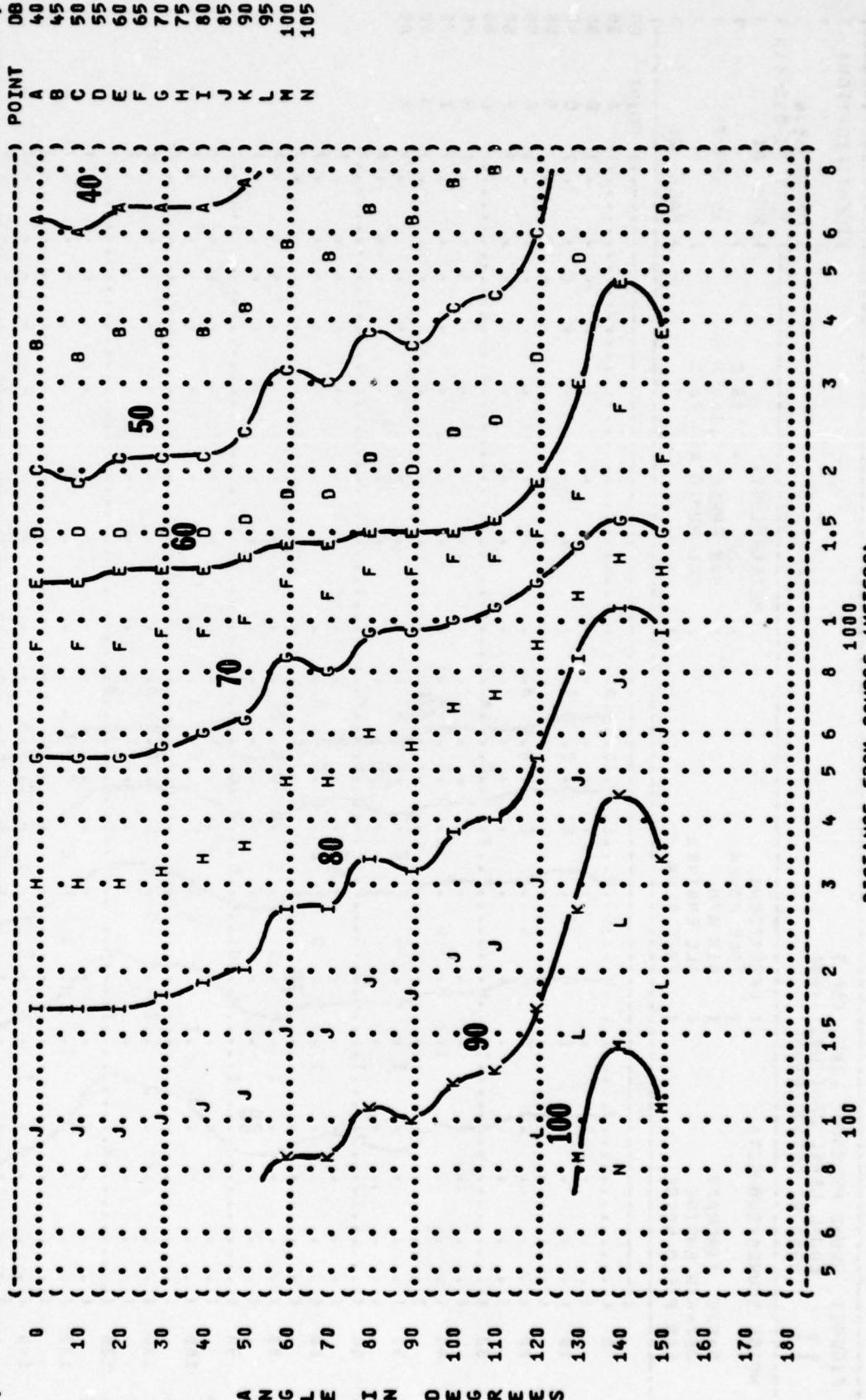
90% RPM ENGINE NO. 4
 IDLE POWER
 61% RPM ALL OTHER ENGINES
 FREE FLOW

METEOROLOGY:

TEMP = 15 C
 BAR PRESS = .760 M HG
 REL HUMID = 70 %

IDENTIFICATION:

OMEGA 1.4
 TEST 75-002-010
 RUN 02
 15 APR 75
 PAGE 18



A N G L E I N D E G R E E S

FIGURE: SOUND PRESSURE LEVEL (SPL)
 11 EQUAL LEVEL CONTOURS (DB)
 63 HZ OCTAVE BAND

IDENTIFICATION:
 OMEGA 1.4
 TEST 75-002-010
 RUN 02

NOISE SOURCE/SUBJECT:
 OPERATION:
 90% RPM ENGINE NO. 4
 8-52G AIRCRAFT
 J57-43M ENGINE
 FAR FIELD NOISE

METEOROLOGY:
 TEMP = 15 C
 BAR PRESS = .760 M HG
 REL HUMID = 70 %
 FREE FLOW

PAGE 19

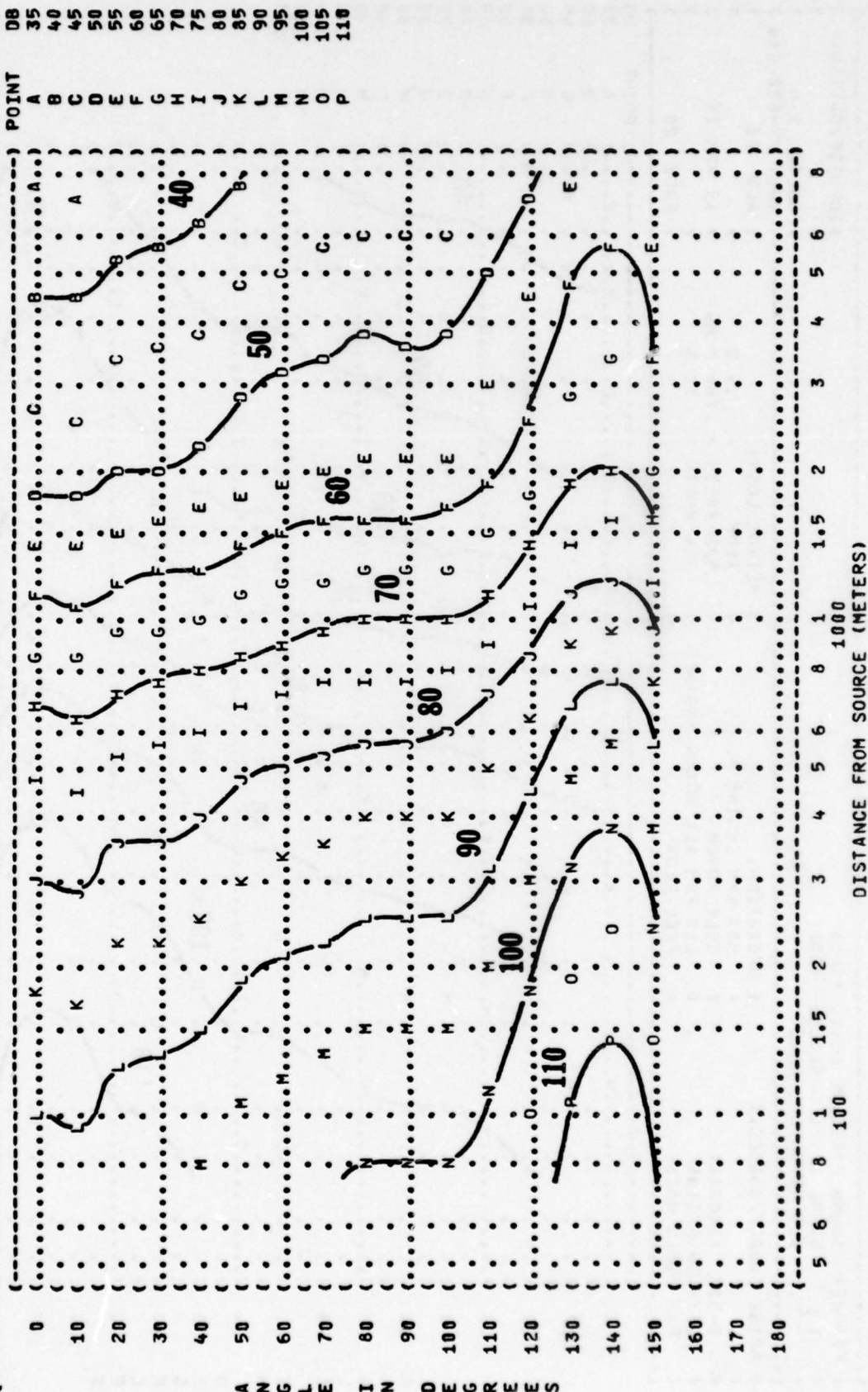
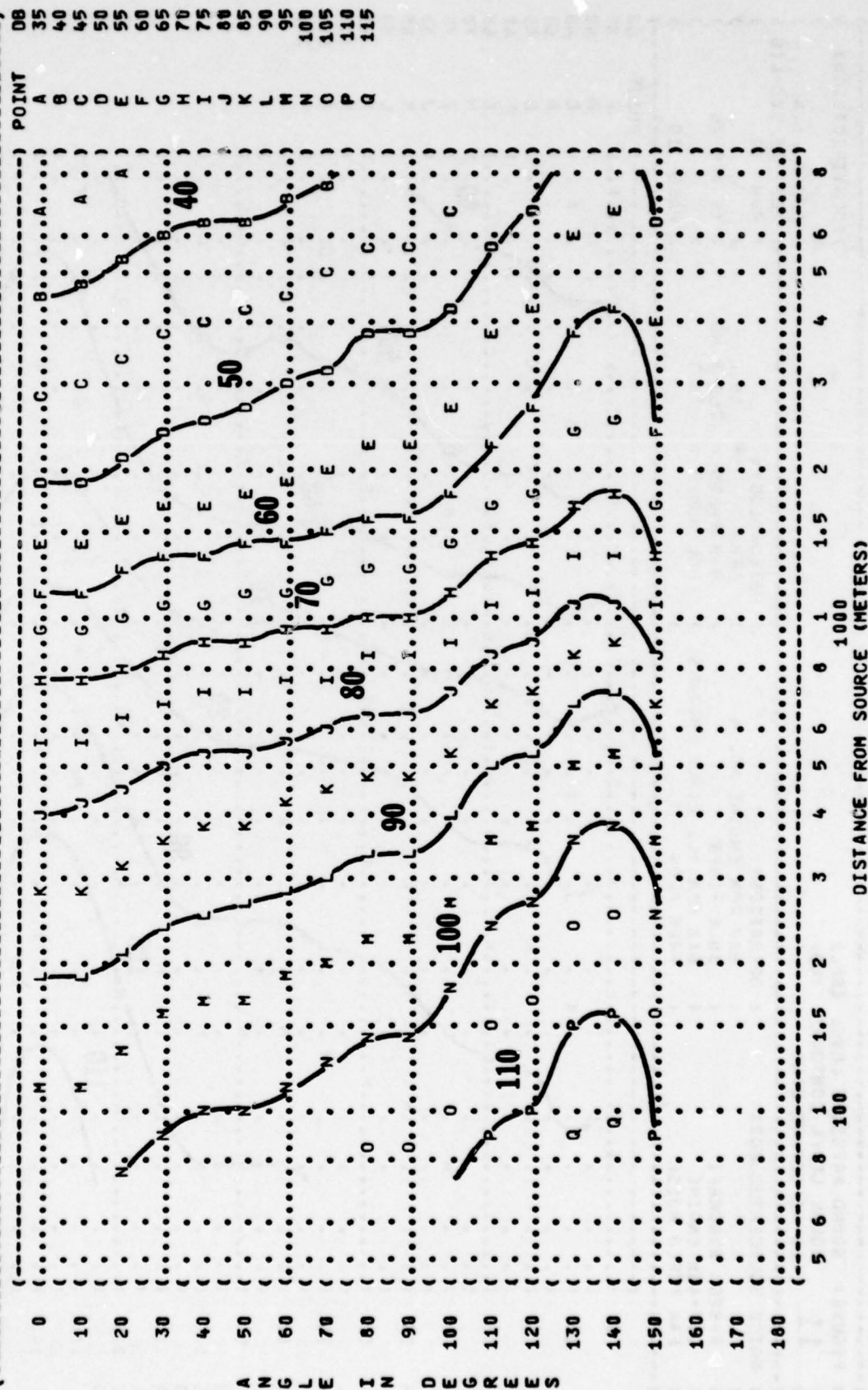


FIGURE: SOUND PRESSURE LEVEL (SPL)
 11 EQUAL LEVEL CONTOURS (DB)
 125 HZ OCTAVE BAND

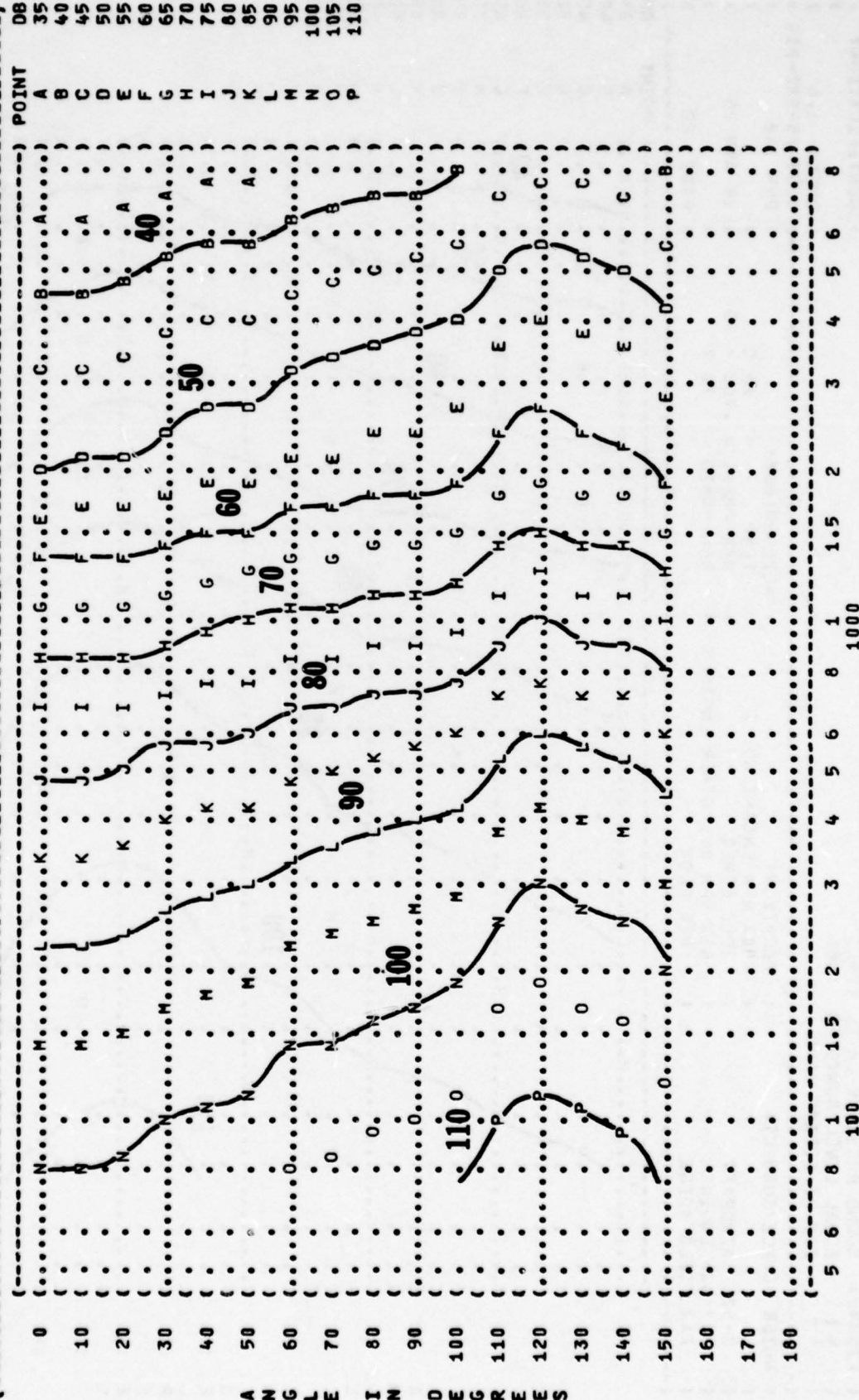
NOISE SOURCE/SUBJECT: OPERATION:
 (90% RPM ENGINE NO. 4)
 (IDLE POWER)
 (61% RPM ALL OTHER ENGINES)
 (FREE FLOW)

METEOROLOGY:
 (TEMP = 15 C)
 (BAR PRESS = .760 M HG)
 (REL HUMID = 70 %)

IDENTIFICATION:
 (OMEGA 1.4)
 (TEST 75-002-010)
 (RUN 02)
 (15 APR 75)
 (PAGE 20)



(FIGURE: SOUND PRESSURE LEVEL {SPL}
 (11 EQUAL LEVEL CONTOURS (DB)
 (250 HZ OCTAVE BAND
 (NOISE SOURCE/SUBJECT:
 ((OPERATION:
 ((90% RPM ENGINE NO. 4
 ((IDLE POWER
 ((61% RPM ALL OTHER ENGINES
 ((FREE FLOW
 (NOISE SOURCE/SUBJECT:
 ((B-52G AIRCRAFT
 ((J57-43M ENGINE
 ((FAR FIELD NOISE
 (METEOROLOGY:
 (TEMP = 15 C
 (BAR PRESS = .760 M HG
 (REL HUMID = 70 %
 (IDENTIFICATION:
 (OMEGA 1.4
 (TEST 75-002-010
 (RUN 02
 (15 APR 75
 (PAGE 21

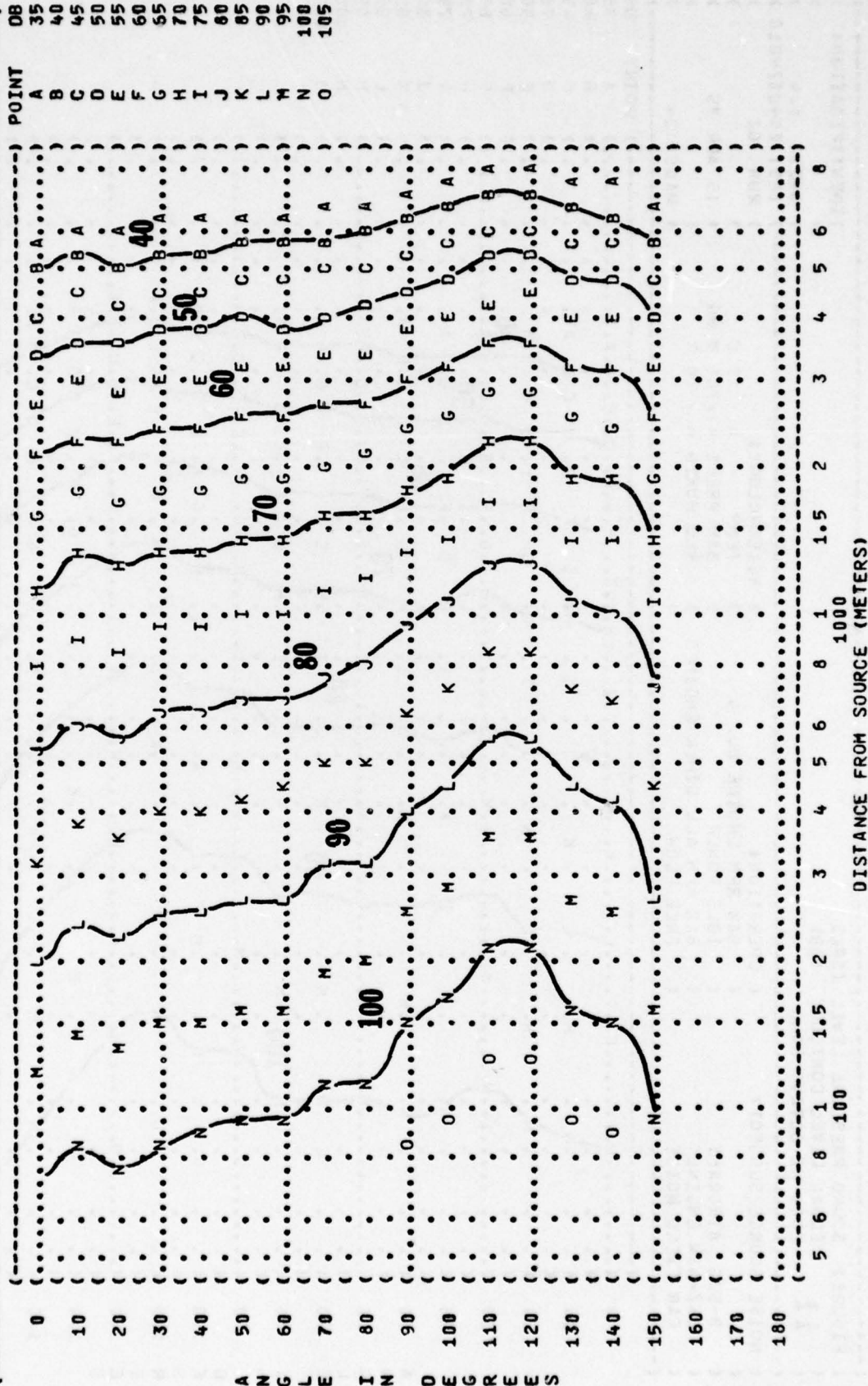


A N G L E I N D E G R E E S

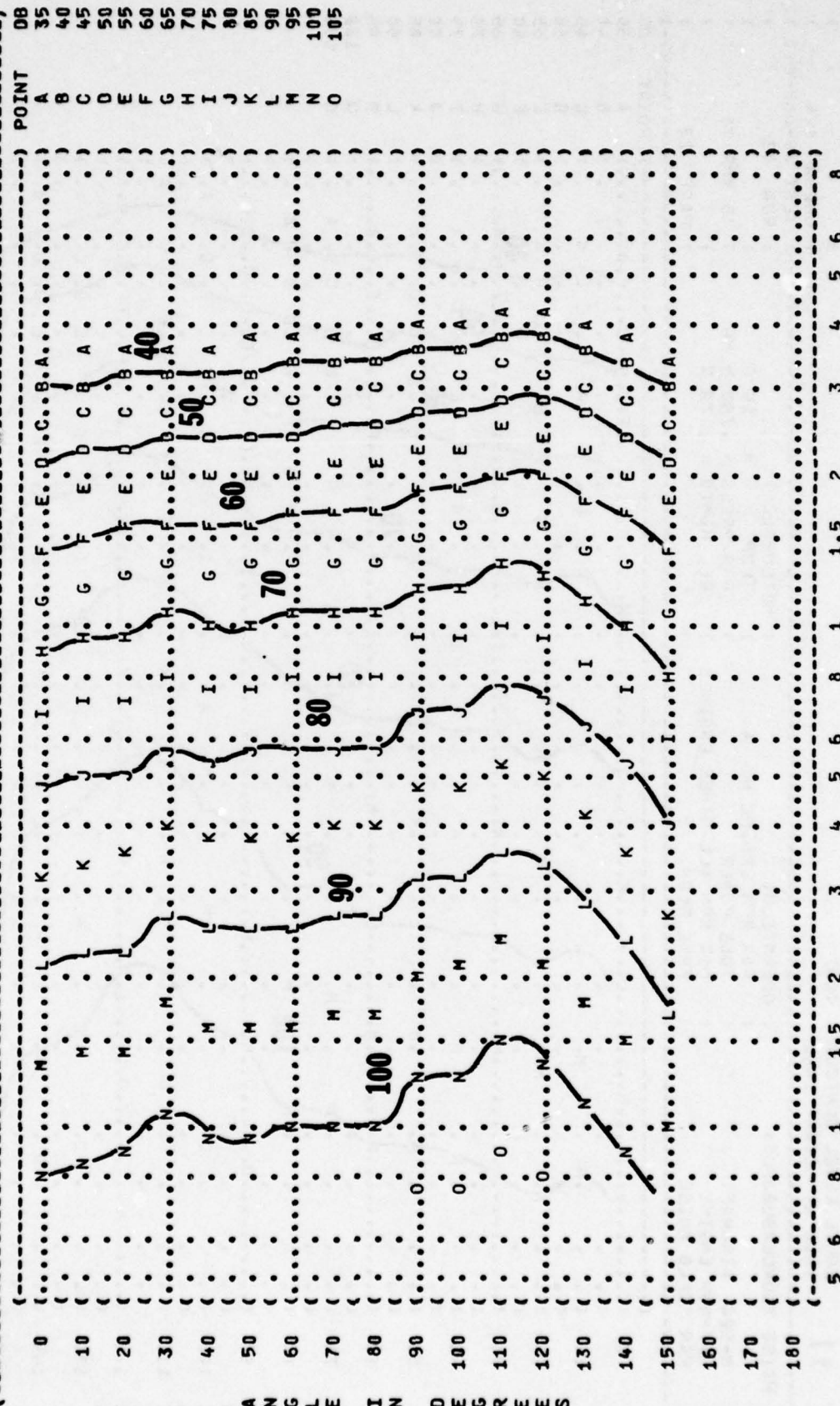
FIGURE: SOUND PRESSURE LEVEL (SPL)
 EQUAL LEVEL CONTOURS (DB)
 11 1000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT: (OPERATION:) METEOROLOGY:)
 (90% RPM ENGINE NO. 4) TEMP = 15 C)
 (IDLE POWER) BAR PRESS = .760 M HG)
 (61% RPM ALL OTHER ENGINES) REL HUMID = 70 %)
 (FREE FLOW))

IDENTIFICATION:)
) OMEGA 1.4
) TEST 75-002-010
) RUN 02
) 15 APR 75
) PAGE 23



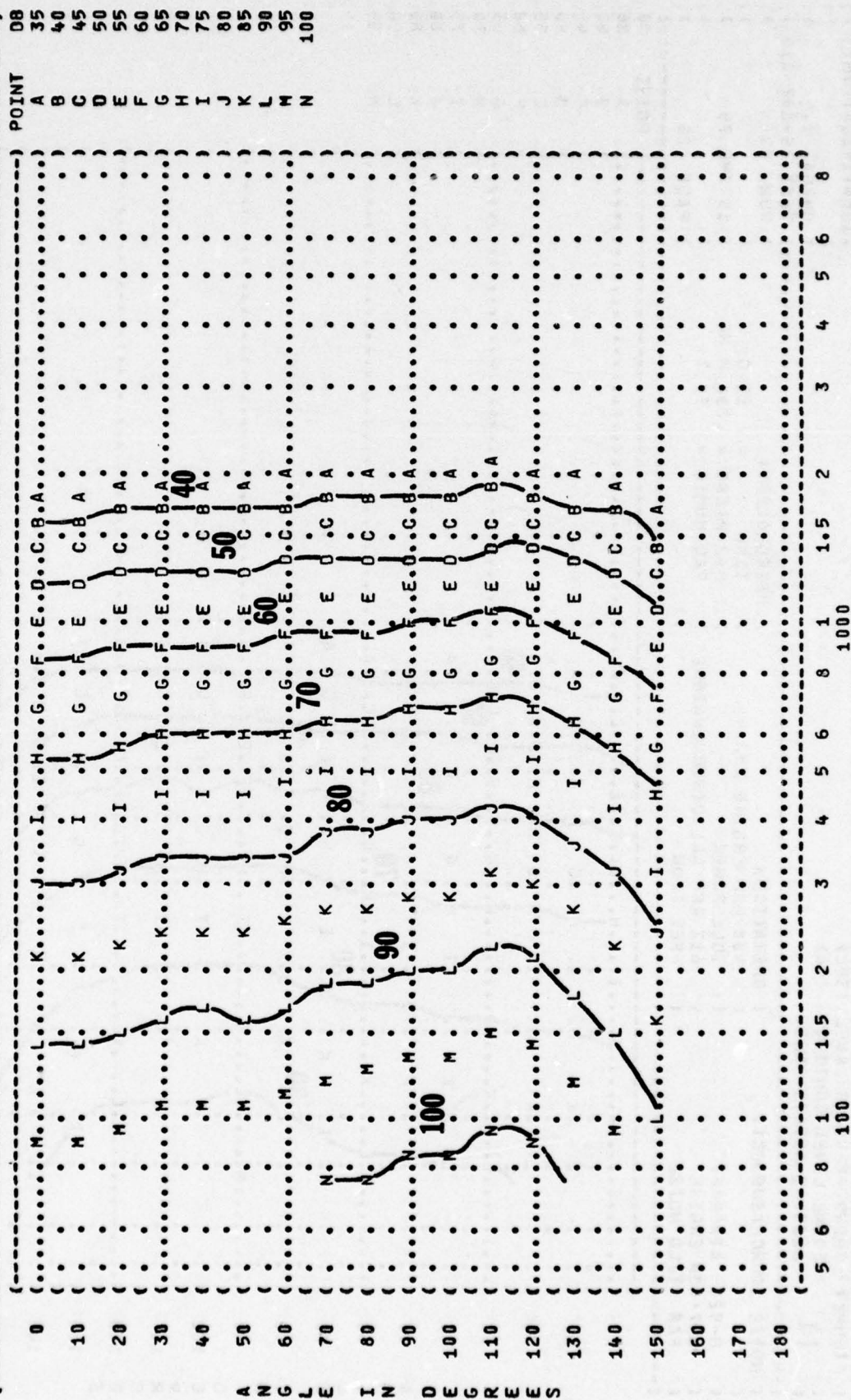
(FIGURE: SOUND PRESSURE LEVEL (SPL)
 (11 EQUAL LEVEL CONTOURS (DB)
 (2000 HZ OCTAVE BAND
 (NOISE SOURCE/SUBJECT:
 (OPERATION:
 (90% RPM ENGINE NO. 4
 (B-52G AIRCRAFT
 (J57-43M ENGINE
 (FAR FIELD NOISE
 (METEOROLOGY:
 (TEMP = 15 C
 (BAR PRESS = .760 M HG
 (REL HUMID = 70 %
 (FREE FLOW
 (IDENTIFICATION:
 (OMEGA 1.4
 (TEST 75-002-010
 (RUN 02
 (15 APR 75
 (PAGE 24



DISTANCE FROM SOURCE (METERS)

A N G L E I N D E G R E E S

(FIGURE: SOUND PRESSURE LEVEL (SPL)
 (11 EQUAL LEVEL CONTOURS (DB)
 (4000 HZ OCTAVE BAND
 (NOISE SOURCE/SUBJECT:)
 ((OPERATION:) METEOROLOGY:)
 ((90% RPM ENGINE NO. 4)) TEMP = 15 C
 ((IDLE POWER)) BAR PRESS = .760 M HG
 ((61% RPM ALL OTHER ENGINES)) REL HUMID = 70 %
 ((FREE FLOW))
 (8-52G AIRCRAFT)
 (J57-43W ENGINE)
 (FAR FIELD NOISE)
 ()
 () IDENTIFICATION:)
 ()
 () OMEGA 1.4
 () TEST 75-002-010
 () RUN 02
 () 15 APR 75
 () PAGE 25
 ()

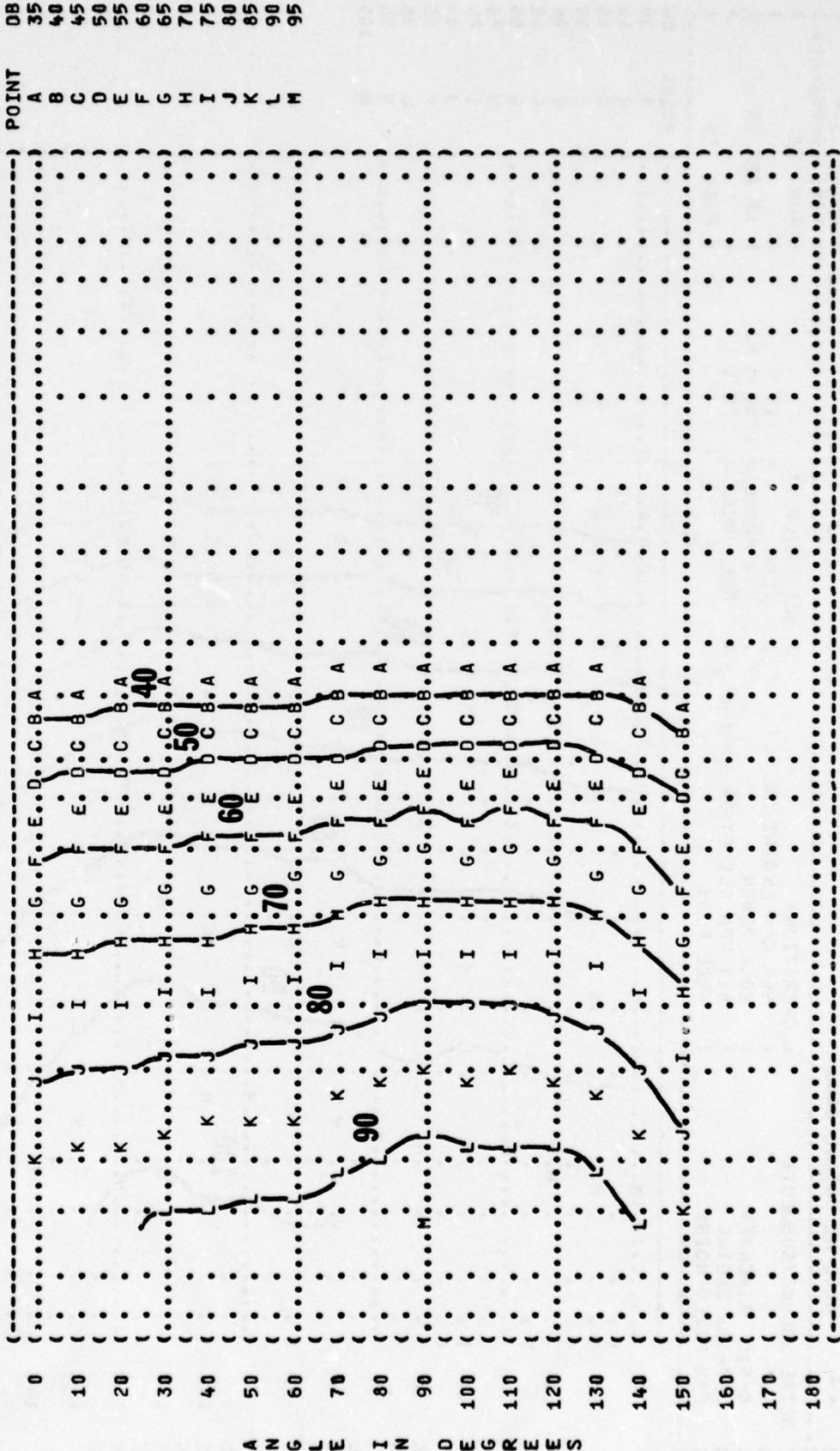


IDENTIFICATION: OMEGA 1.4
 TEST 75-002-010
 RUN 02
 15 APR 75
 PAGE 26

METEOROLOGY:
 TEMP = 15 C
 BAR PRESS = .760 M HG
 REL HUMID = 70 %

OPERATION:
 90% RPM ENGINE NO. 4
 IOLE POWER
 61% RPM ALL OTHER ENGINES
 FREE FLOW

NOISE SOURCE/SUBJECT:
 B-52G AIRCRAFT
 J57-43M ENGINE
 FAR FIELD NOISE



POINT DB
 A 35
 B 40
 C 45
 D 50
 E 55
 F 60
 G 65
 H 70
 I 75
 J 80
 K 85
 L 90
 M 95

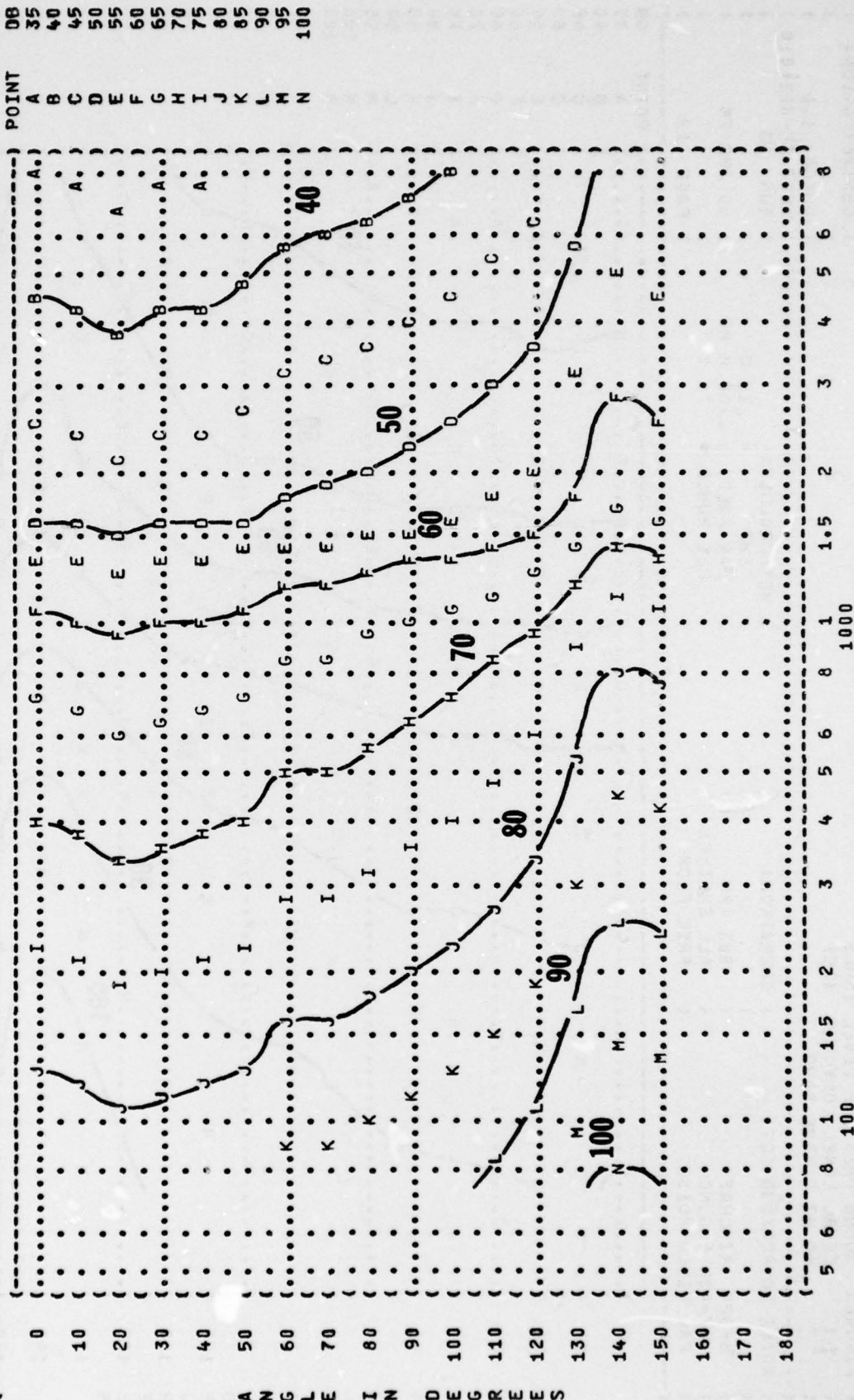
DISTANCE FROM SOURCE (METERS)
 5 6 8 1 100 1000

FIGURE: SOUND PRESSURE LEVEL {SPL}
 11 EQUAL LEVEL CONTOURS (DB)
 31.5 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT: OPERATION:
 ((80% RPM
 ((ALL ENGINES
 ((FREE FLOW

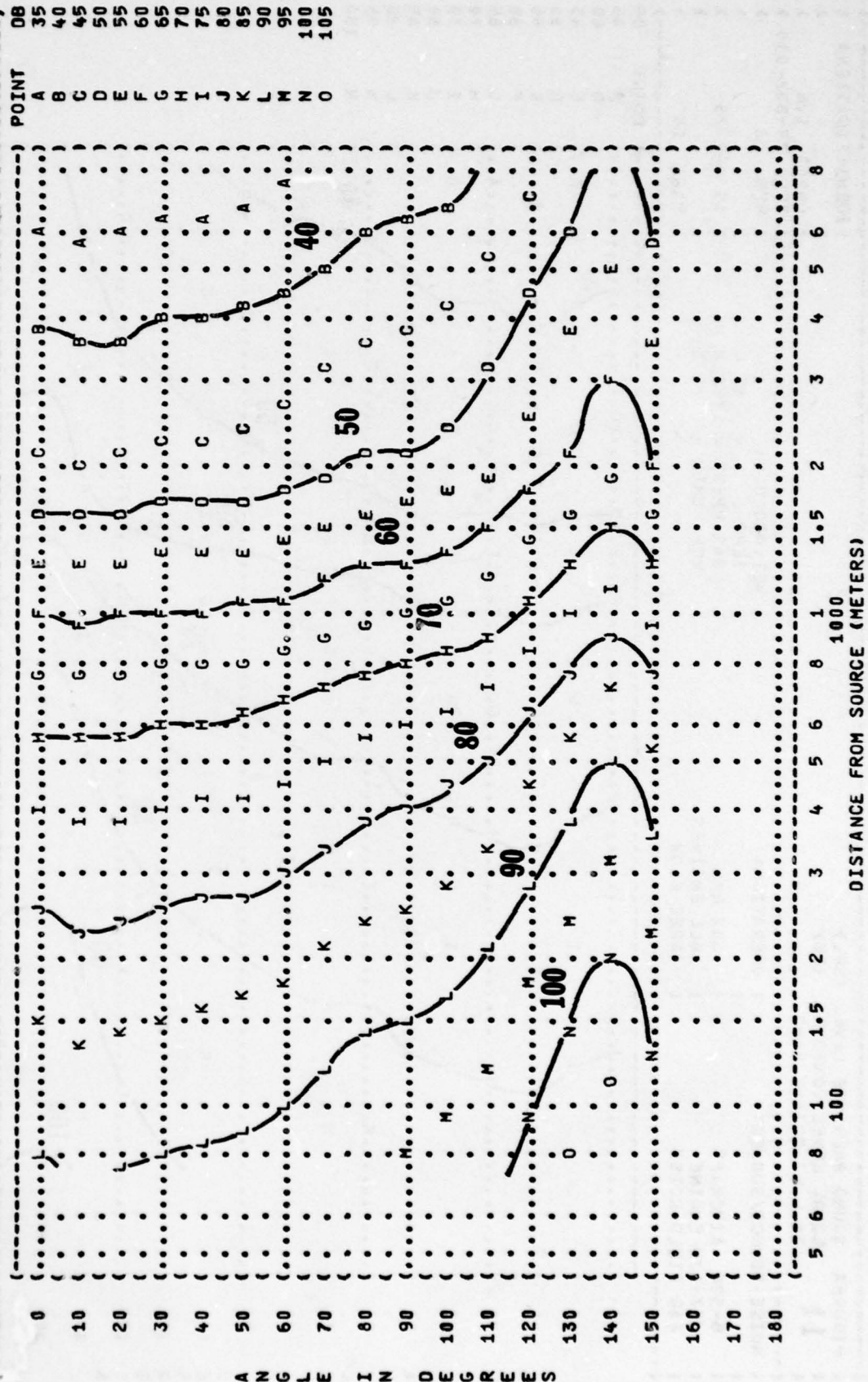
METEOROLOGY:
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 () BAR PRESS = .760 M HG
 () REL HUMID = 70 %

IDENTIFICATION:
 () OMEGA 1.4
 () TEST 75-002-010
 () RUN 03
 () 15 APR 75
 () PAGE 18

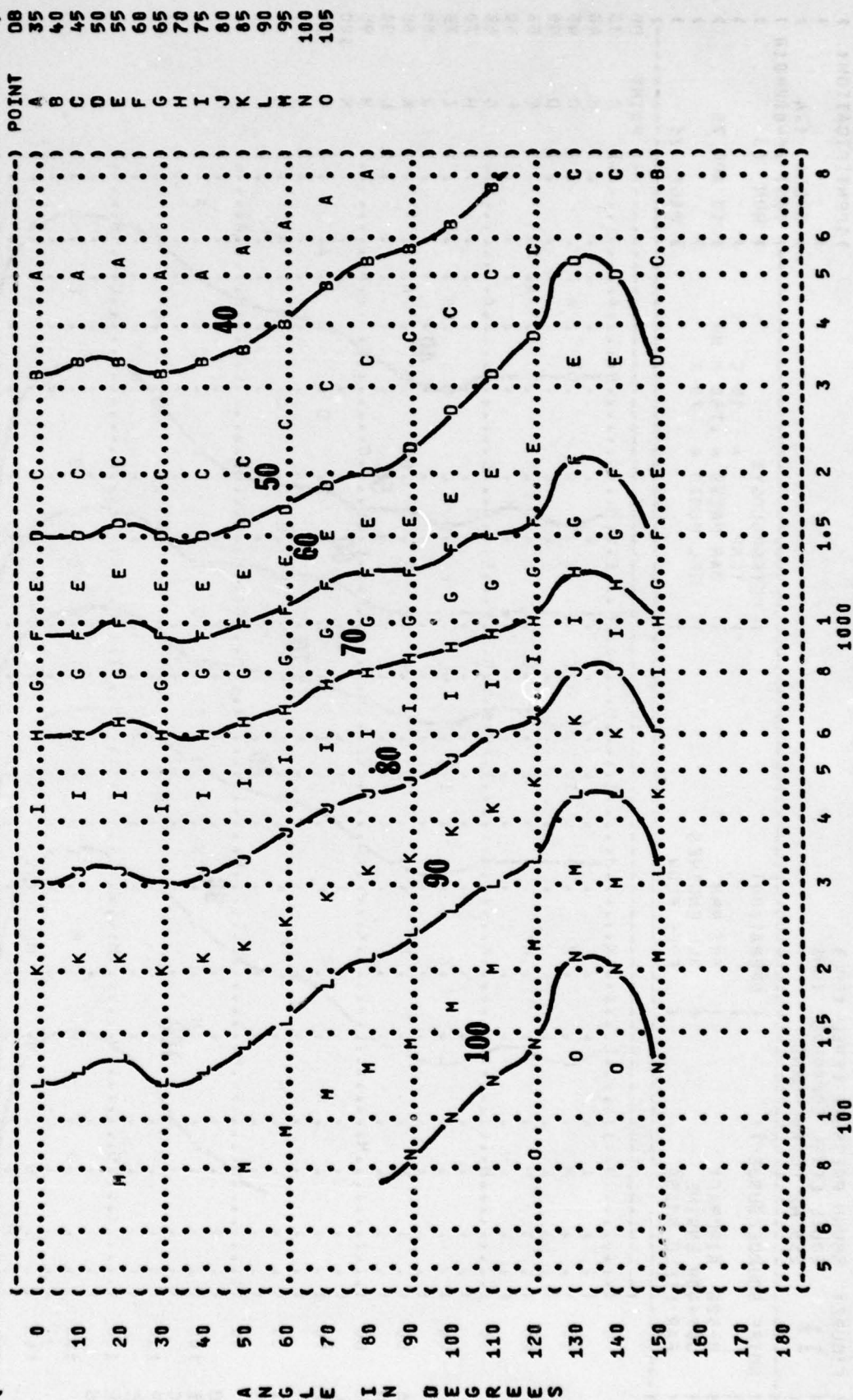


A N G L I N D E G R E E S

((FIGURE: SOUND PRESSURE LEVEL (SPL)
 ((11 EQUAL LEVEL CONTOURS (DB)
 ((63 HZ OCTAVE BAND
 ((NOISE SOURCE/SUBJECT: (OPERATION:
 ((8-52G AIRCRAFT (80% RPM
 ((J57-43M ENGINE (ALL ENGINES
 ((FAR FIELD NOISE (FREE FLOW
 ((METEOROLOGY: (TEMP = 15 C
 ((BAR PRESS = .760 M HG
 ((REL HUMID = 70 %
 ((IDENTIFICATION: (OMEGA 1.4
 ((TEST 75-002-010
 ((RUN 03
 ((15 APR 75
 ((PAGE 19



(FIGURE: SOUND PRESSURE LEVEL (SPL)
 (11 EQUAL LEVEL CONTOURS (DB)
 (125 HZ OCTAVE BAND
 (NOISE SOURCE/SUBJECT: (OPERATION:
 (B-52G AIRCRAFT (80% RPM
 (J57-43W ENGINE (ALL ENGINES
 (FAR FIELD NOISE (FREE FLOW
 (METEOROLOGY:
 (TEMP = 15 C
 (BAR PRESS = .760 M HG
 (REL HUMID = 70 %
 (IDENTIFICATION:
 (OMEGA 1.4
 (TEST 75-002-010
 (RUN 03
 (15 APR 75
 (PAGE 20



```
(-----)
( FIGURE: SOUND PRESSURE LEVEL {SPL} ) IDENTIFICATION: )
( 11 EQUAL LEVEL CONTOURS (DB) ) )
( 250 HZ OCTAVE BAND ) )
( ) )
( NOISE SOURCE/SUBJECT: ) METEOROLOGY: )
( ) ) TEMP = 15 C )
( B-52G AIRCRAFT ) BAR PRESS = .760 M HG )
( J57-43M ENGINE ) ALL ENGINES ) 15 APR 75 )
( FAR FIELD NOISE ) FREE FLOW ) ) PAGE 21 )
(-----)
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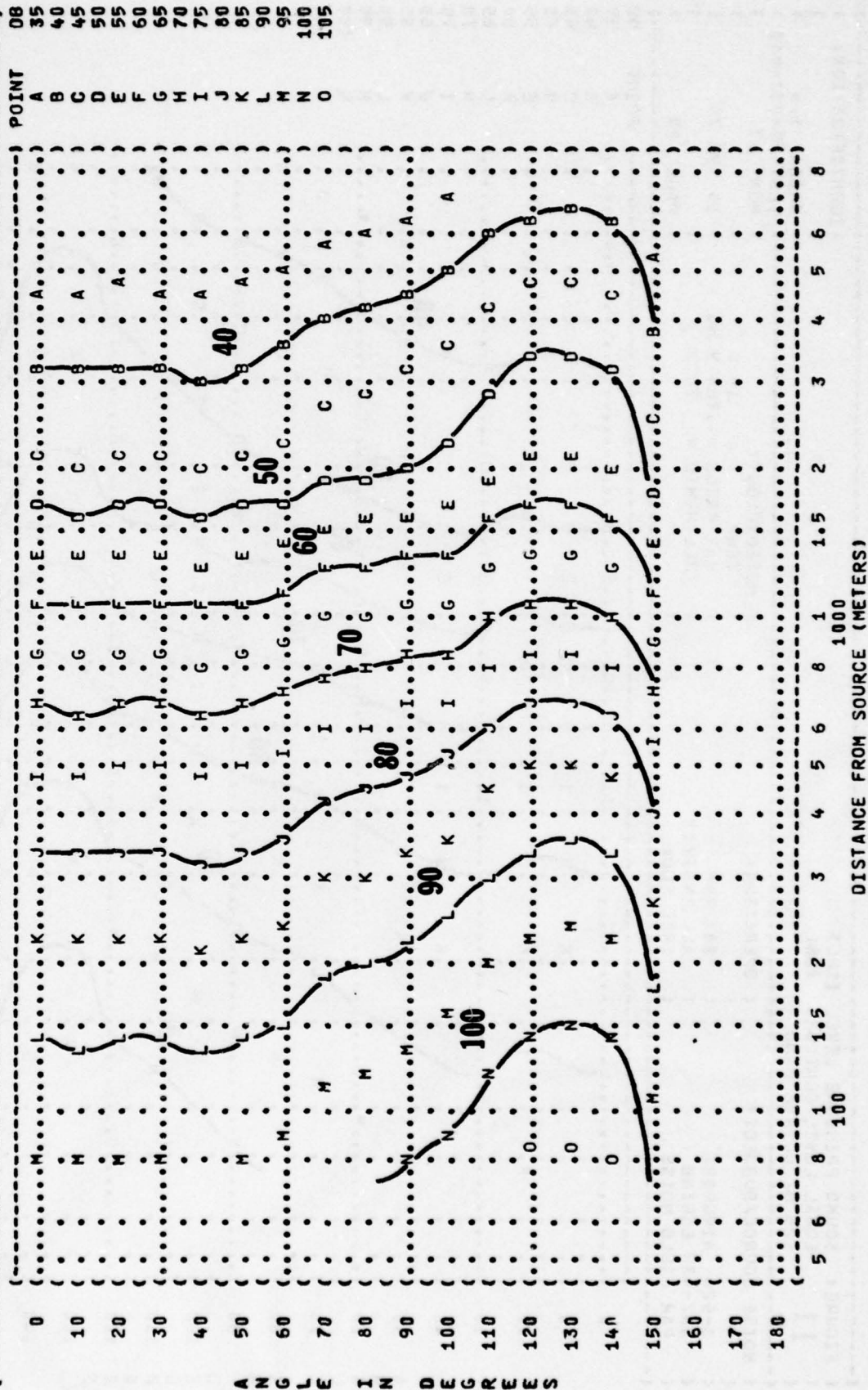


FIGURE 1 SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
500 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:

B-52G. AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:

80% RPM
ALL ENGINES
FREE FLOW

METEOROLOGY:

TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:

OMEGA 1.4

TEST 75-002-010

RUN 03

PAGE 22

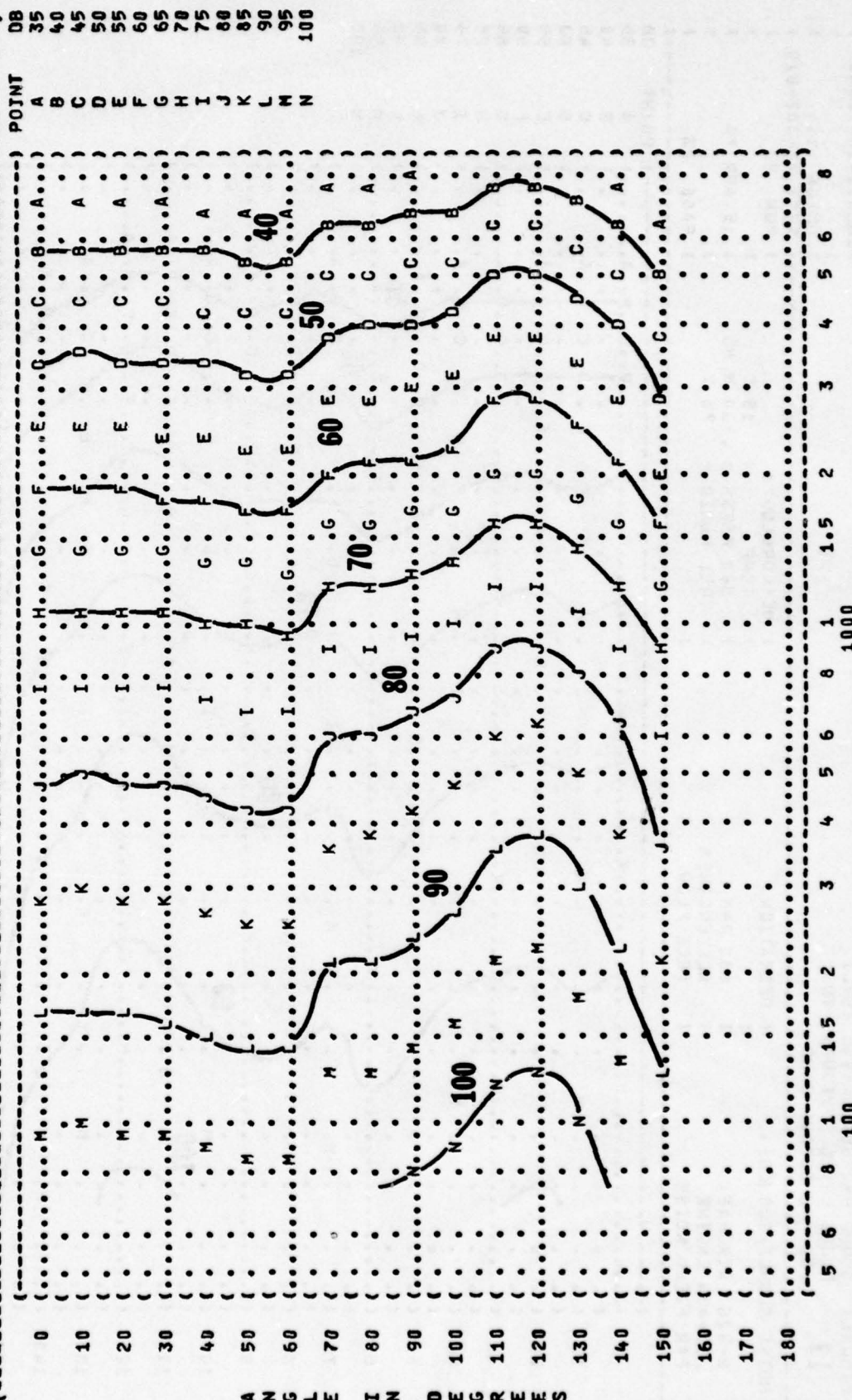


FIGURE: SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
1000 HZ OCTAVE BAND

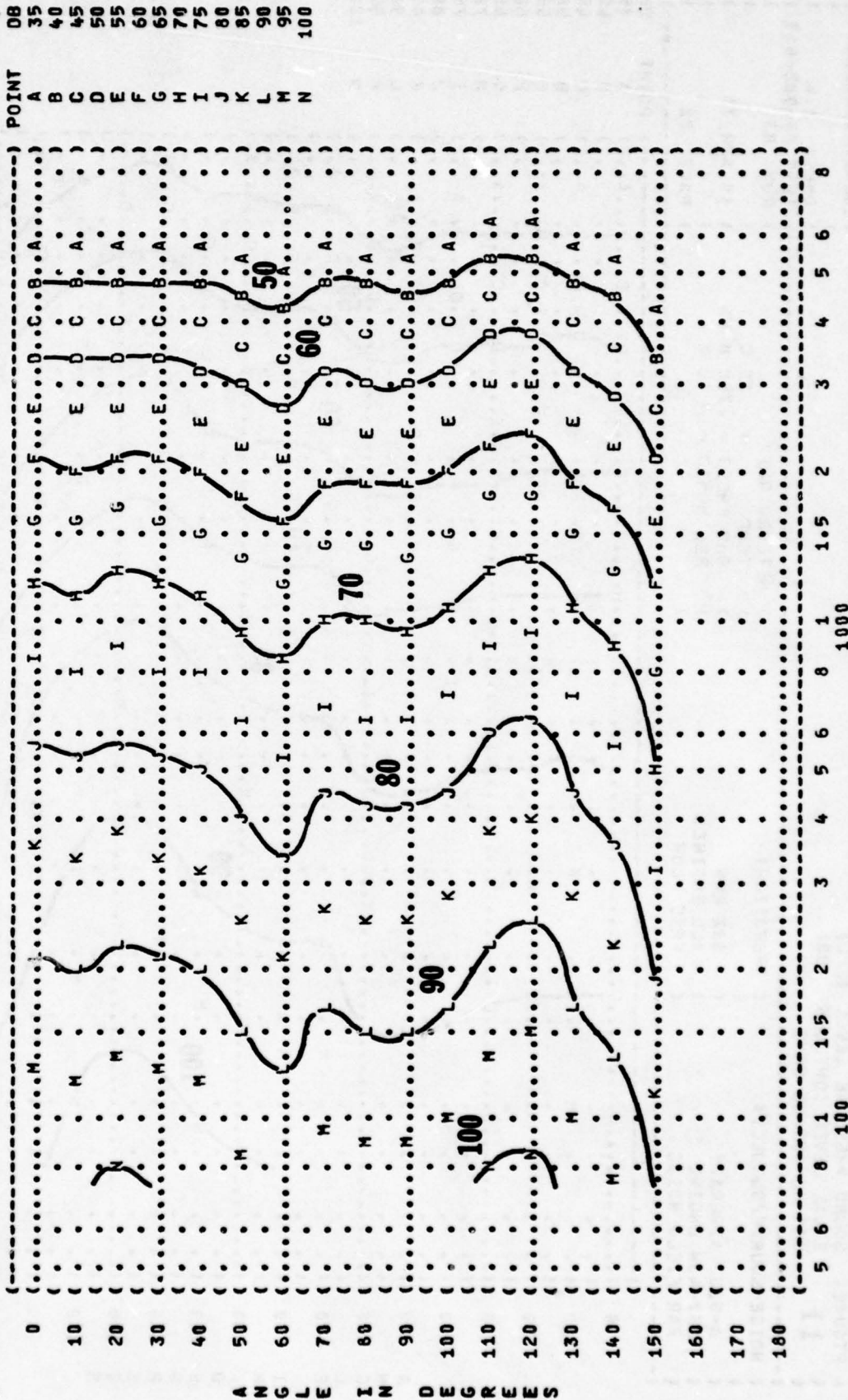
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IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 03
METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %
15 APR 75
PAGE 23

NOISE SOURCE/SUBJECT:

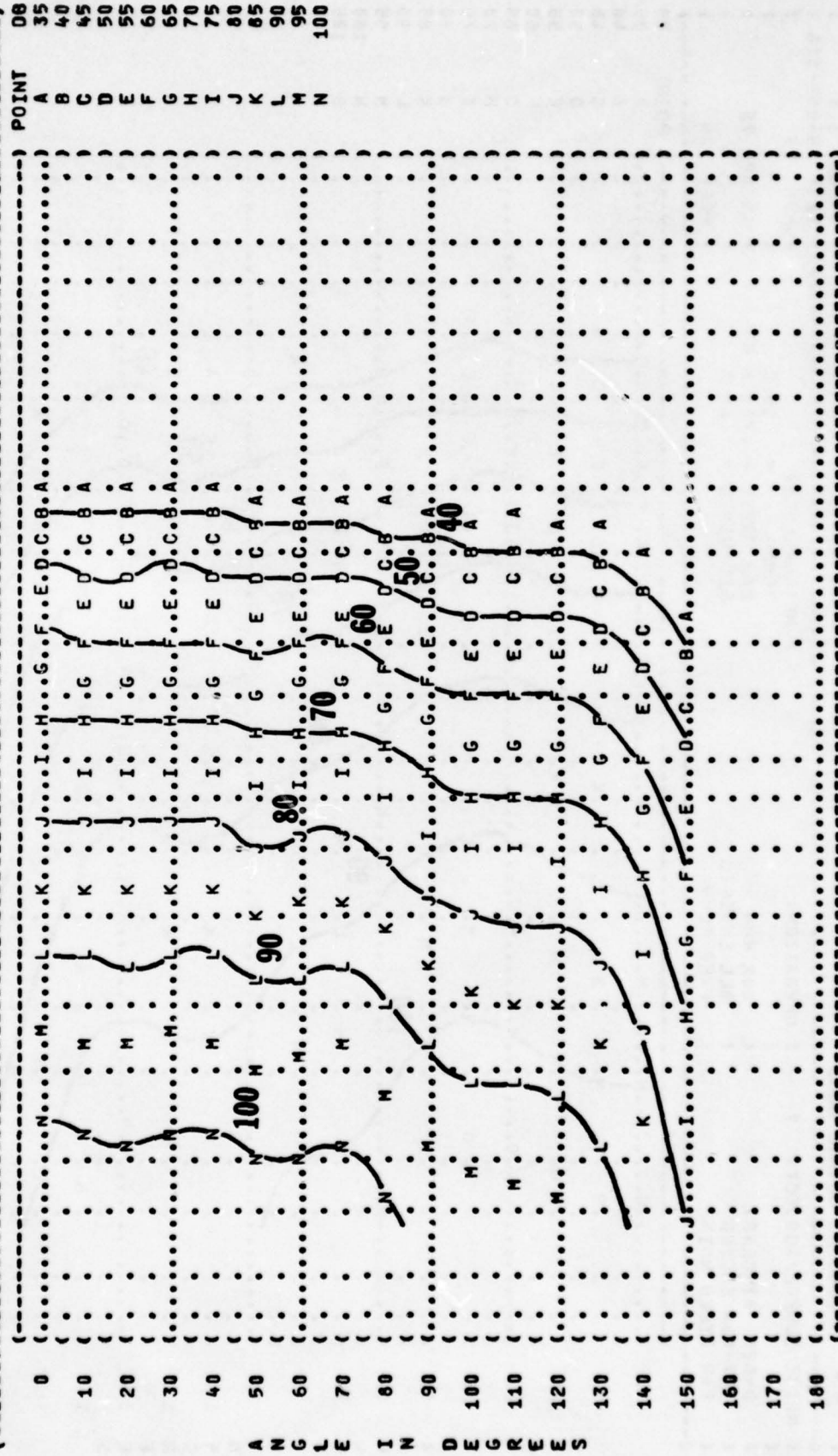
OPERATION:
80% RPM
ALL ENGINES
FREE FLOW

8-52G AIRCRAFT
J57-43M ENGINE
FAR FIELD NOISE



DISTANCE FROM SOURCE (METERS)

(FIGURE: SOUND PRESSURE LEVEL (SPL)
 (11 EQUAL LEVEL CONTOURS (DB)
 (4000 HZ OCTAVE BAND
 (NOISE SOURCE/SUBJECT: (OPERATION:
 (B-52G AIRCRAFT (80% RPM
 (J57-43M ENGINE (ALL ENGINES
 (FAR FIELD NOISE (FREE FLOW
 (METEOROLOGY:
 (TEMP = 15 C
 (BAR PRESS = .760 M HG
 (REL HUMID = 70 %
 (IDENTIFICATION:
 (OMEGA 1.4
 (TEST 75-002-010
 (RUN 03
 (15 APR 75
 (PAGE 25



A N G L E I N D E G R E E S

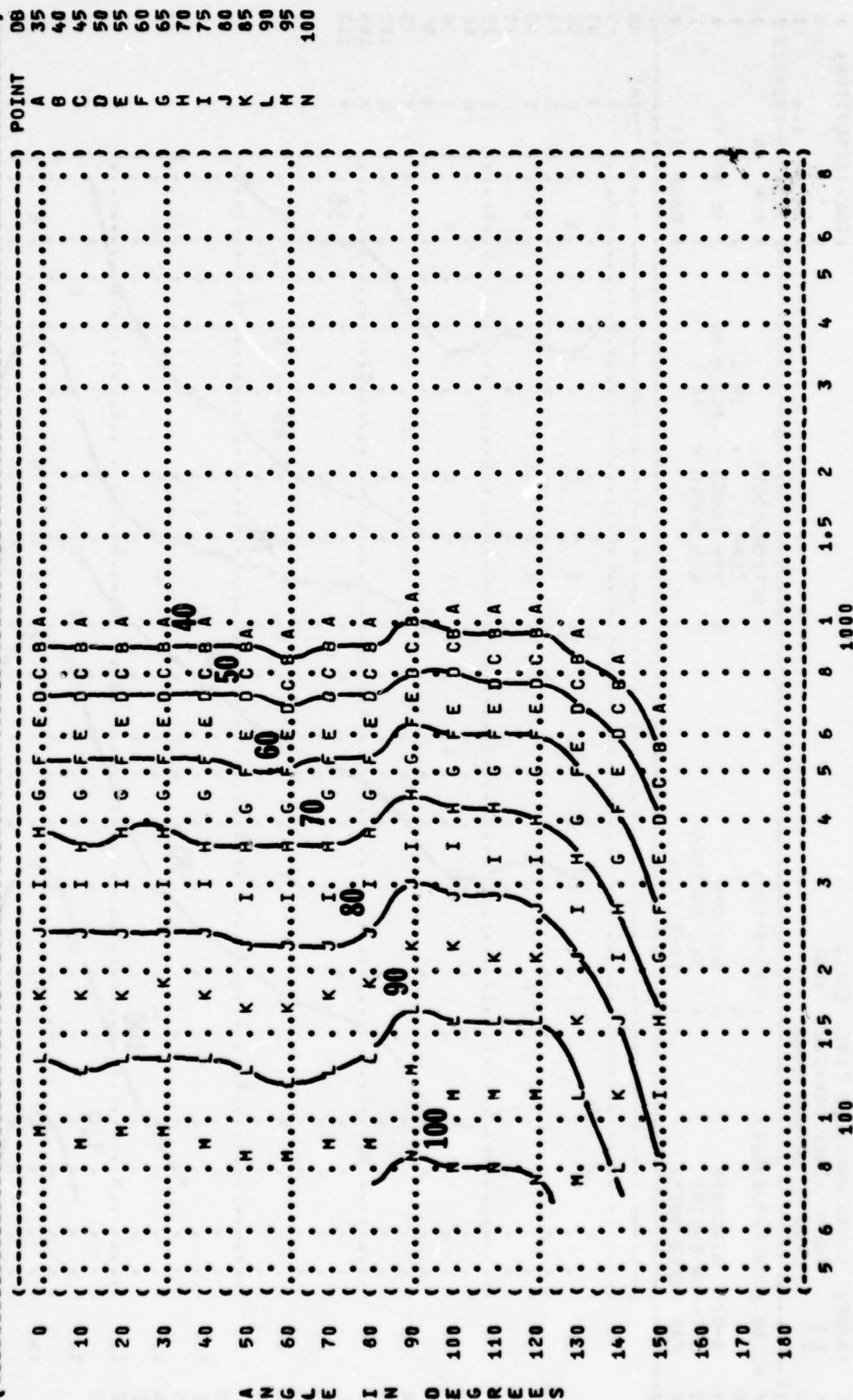
FIGURE 11
SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
8000 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010

NOISE SOURCE/SUBJECT:	OPERATION:
B-52G AIRCRAFT	80% RPM
J57-43M ENGINE	ALL ENGINE
FAR FIELD NOISE	FREE FLOW

METEOROLOGY: = 15 C
TEMP = .760 M HG
BAR PRESS = 70 %
REL HUMID

PAGE 26

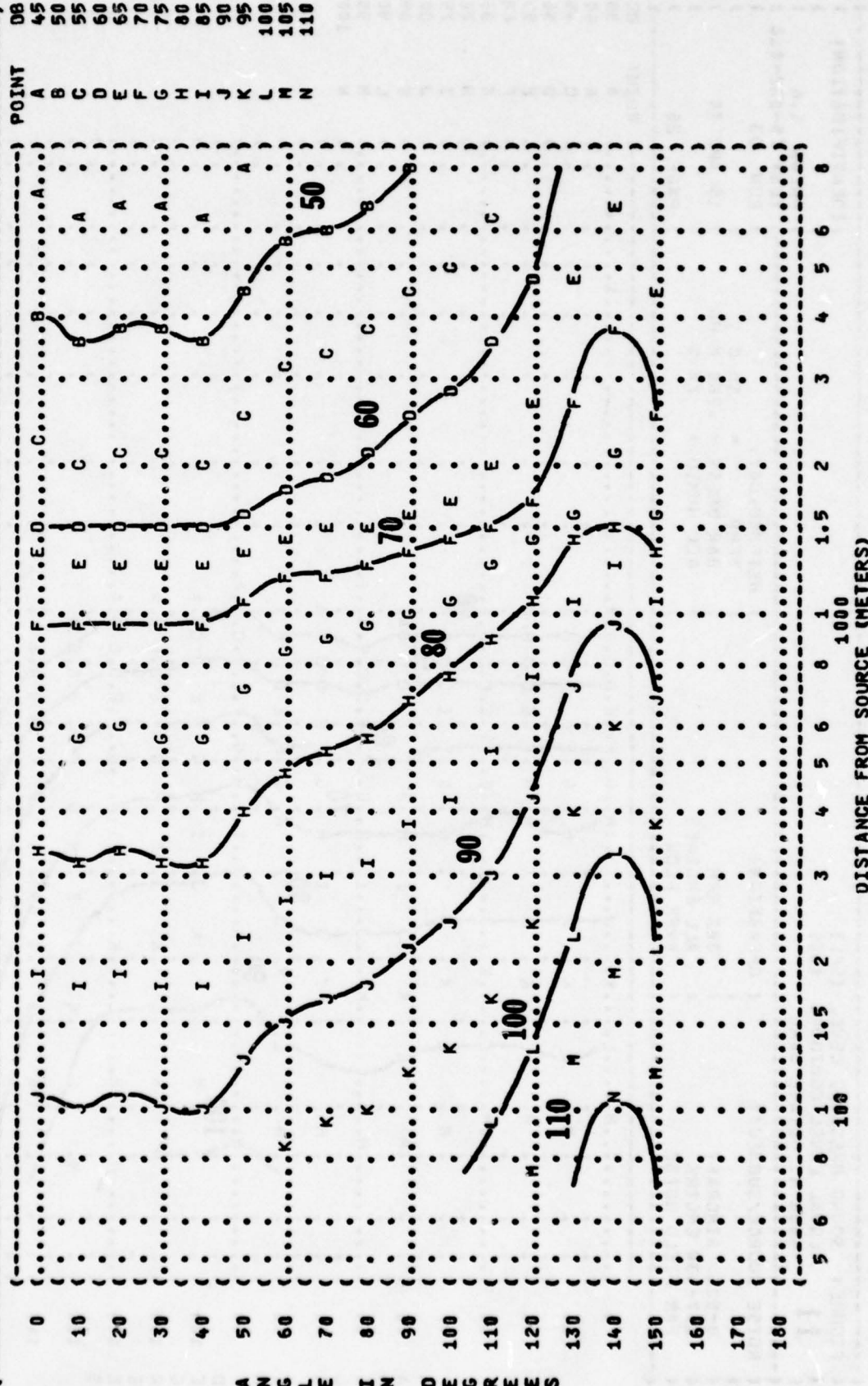


DISTANCE FROM SOURCE (METERS)

FIGURE: SOUND PRESSURE LEVEL (SPL)
 11 EQUAL LEVEL CONTOURS (DB)
 31.5 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT: (OPERATION:) METEOROLOGY:)
 ((90% RPM) TEMP = 15 C)
 ((ALL ENGINES) BAR PRESS = .760 M HG)
 ((FREE FLOW) REL HUMID = 70 %)

IDENTIFICATION:)
) OMEGA 1.4
) TEST 75-002-010
) RUN 04
) 15 APR 75
) PAGE 18



A N G L E I N D E G R E E S

IDENTIFICATIONS:
OMEGA 1.4

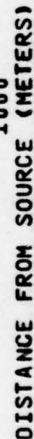
OMEGA 1.4

METEOROLOGY:

RUN 04

BAR PRESS = .760 H HG

REL HUMID = 70 %

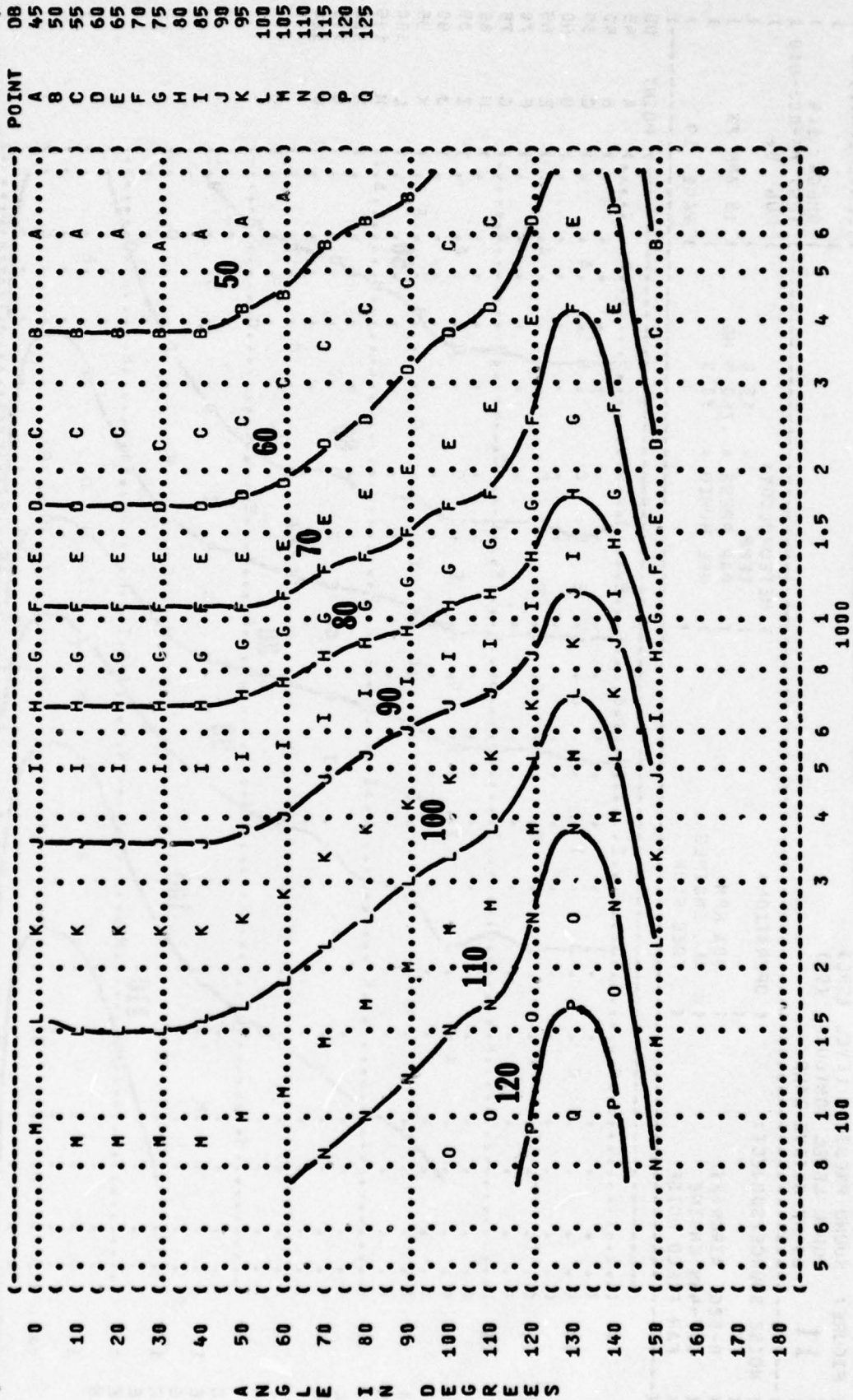


IDENTIFICATION:
 OMEGA 1.4
 TEST 75-002-010
 RUN 04
 15 APR 75
 PAGE 20

METEOROLOGY:
 TEMP = 15 C
 BAR PRESS = .760 M HG
 REL HUMID = 70 %

OPERATION:
 90% RPM
 ALL ENGINES
 FREE FLOW

NOISE SOURCE/SUBJECT:
 B-52G AIRCRAFT
 J57-43M ENGINE
 FAR FIELD NOISE



The map displays the Lake Erie region with a grid of points. The points are labeled with letters (A through R) and numbers (0 through 125). The map includes depth contours for 50, 60, 70, 80, and 90 fathoms. The shoreline of Lake Erie is clearly marked, and the surrounding land areas are shown. The grid points are distributed across the lake and its immediate surroundings, providing a detailed reference for the study area.

IDENTIFICATION: OMEGA 1.4

500 HZ OCTAVE BAND

OPERATIONS:

METEOROLOGY:
TEMP
BAR PRESS
REL HUMID

90% RPM
ALL ENGINES
FREE FLOW

TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

OMEGA 1.4

TEST 75-002-010

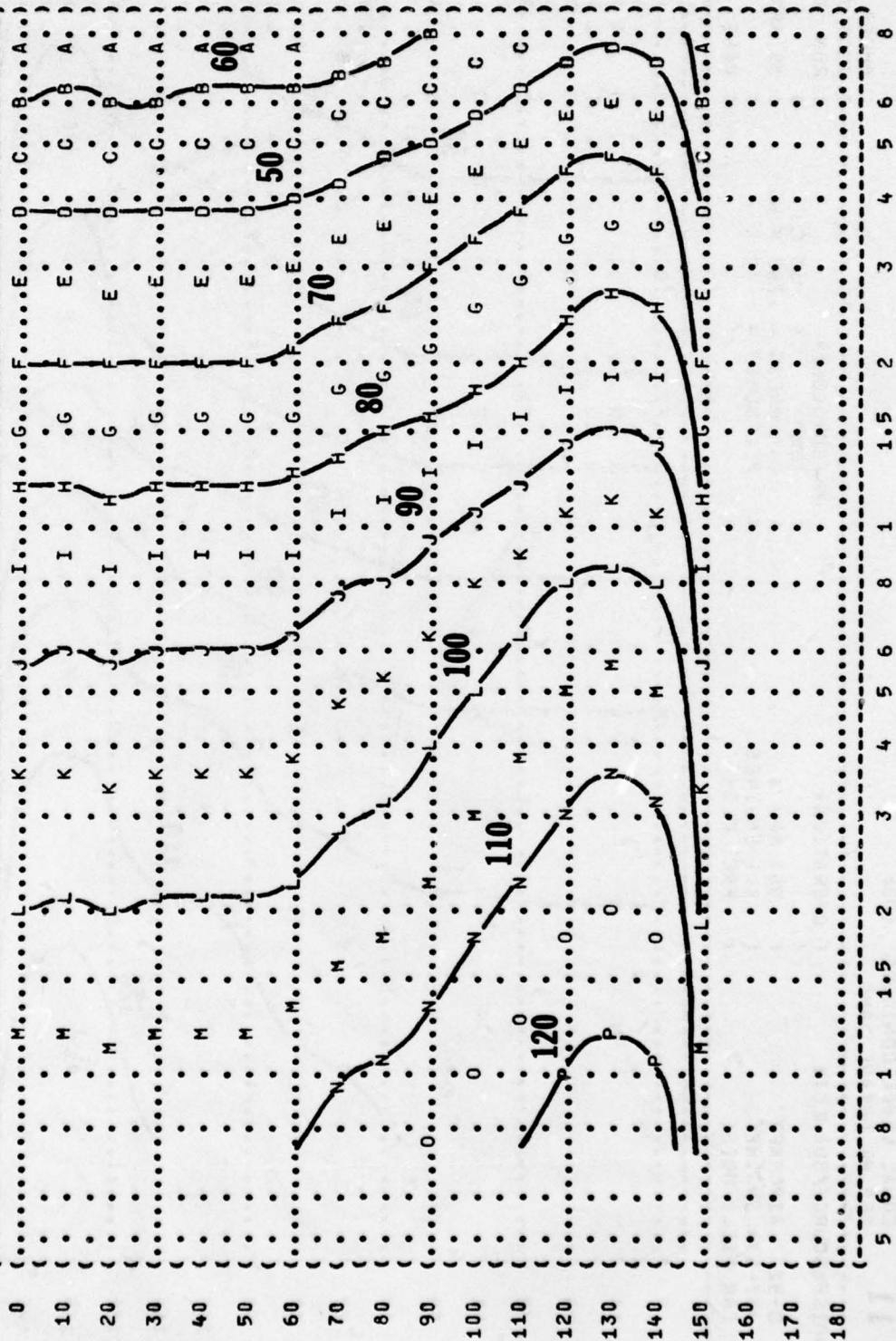
RUN 04

15 APR 75

PAGE 22

POINT

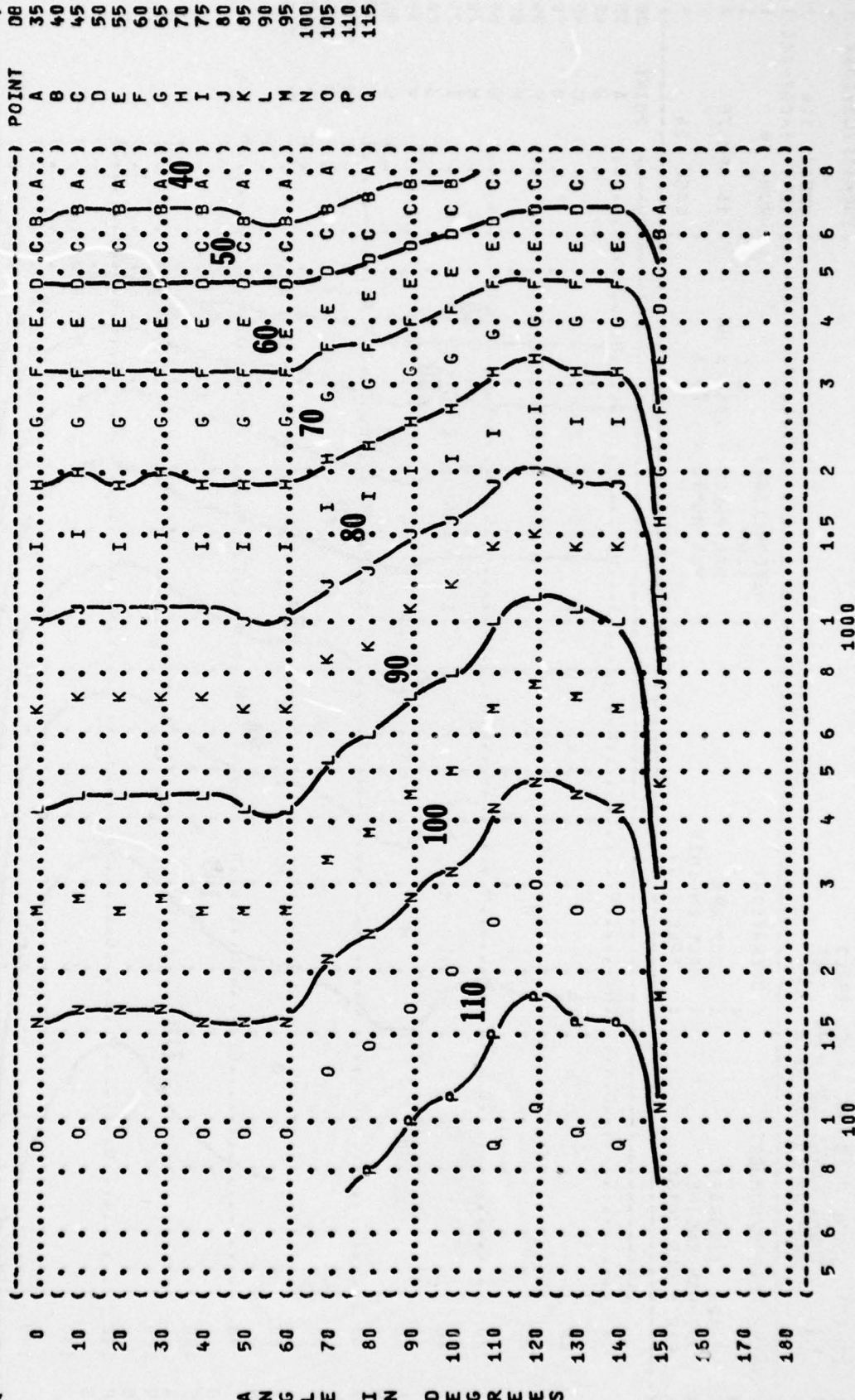
DB 45 50 55 60 65 70 75 80 85 90 95 100 105 110 115 120



DISTANCE FROM SOURCE (METERS) 2000

ANGLE IN DEGREES

(FIGURE: SOUND PRESSURE LEVEL (SPL)
 (11 EQUAL LEVEL CONTOURS (DB)
 (1000 HZ OCTAVE BAND
 (NOISE SOURCE/SUBJECT: (OPERATION:
 (8-526 AIRCRAFT (90% RPM
 (J57-43M ENGINE (ALL ENGINES
 (FAR FIELD NOISE (FREE FLOW
 (METEOROLOGY:
 (TEMP = 15 C
 (BAR PRESS = .760 M HG
 (REL HUMID = 70 %
 (IDENTIFICATION:
 (OMEGA 1.4
 (TEST 75-002-010
 (RUN 04
 (15 APR 75
 (PAGE 23




```

) IDENTIFICATION: )
) )
) OMEGA 1.4 )
) TEST 75-002-010 )

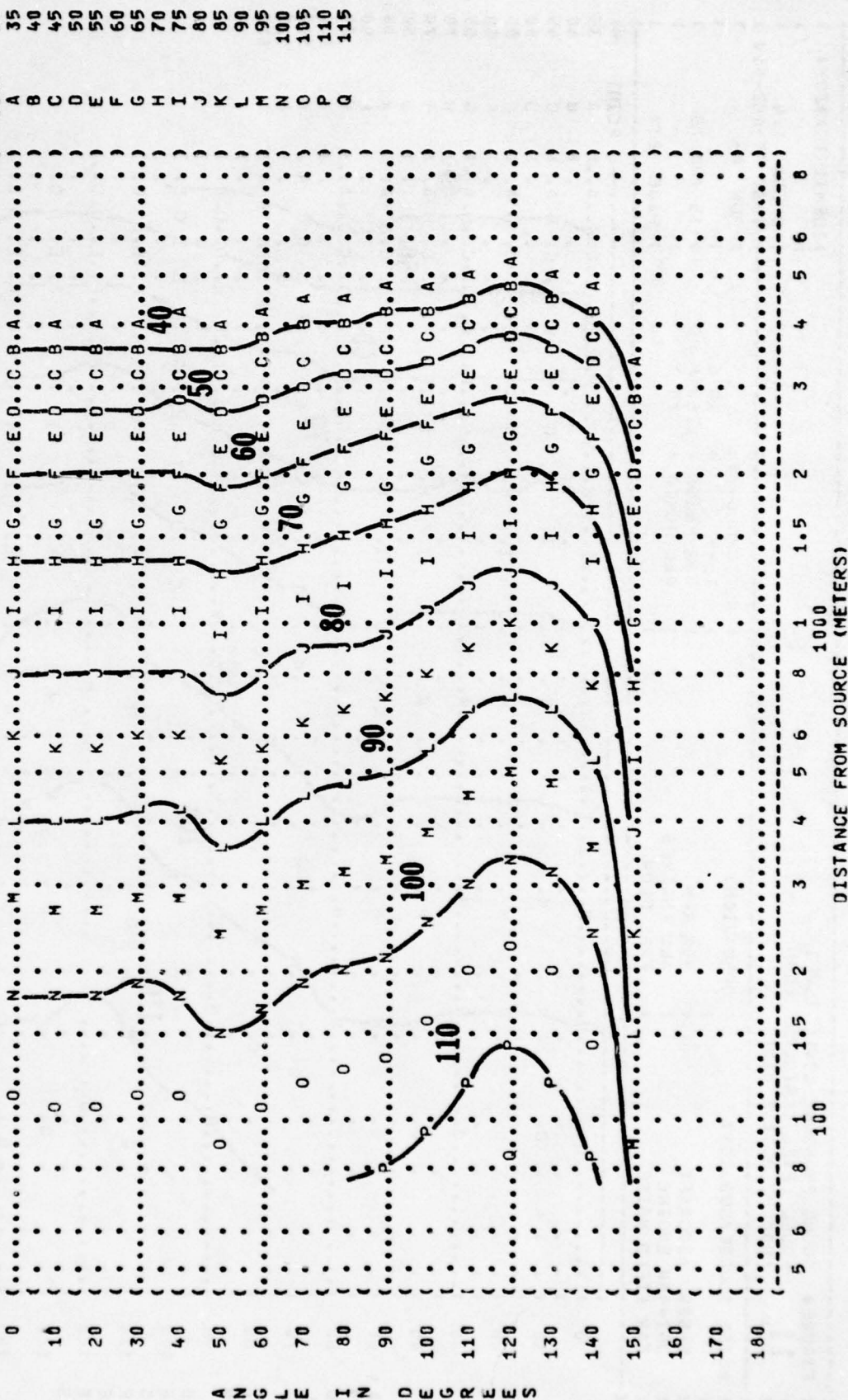
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0 METEOROLOGY:

TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

PAGE 24

-----) P(



ANGLE IN DEGREES


```

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 04

```

NOISE SOURCE/SUBJECT:

(OPERATION:

METEOROLOGY:

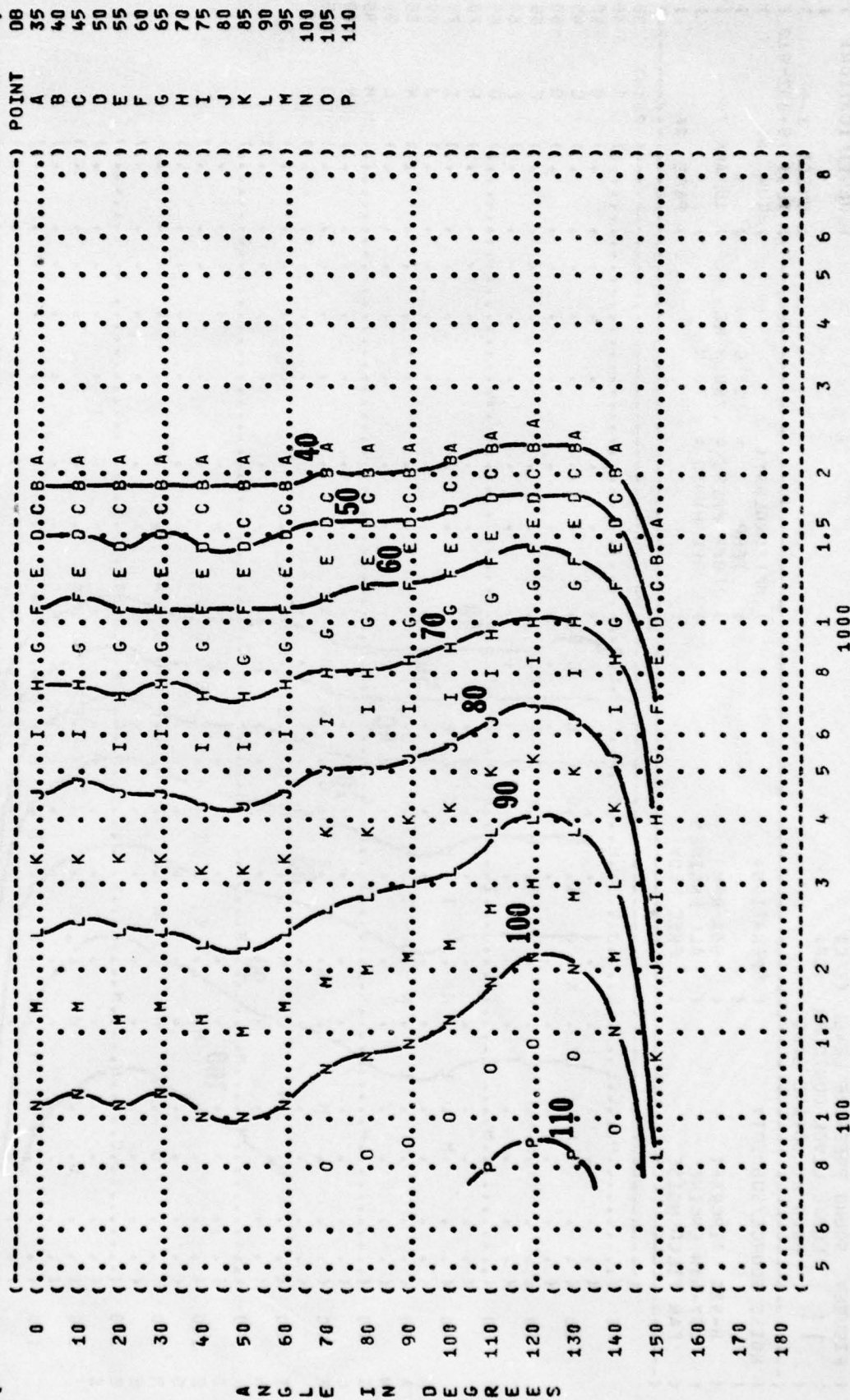
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

(
(
(
(

90% RPM
ALL ENGINES
FREE FLOW

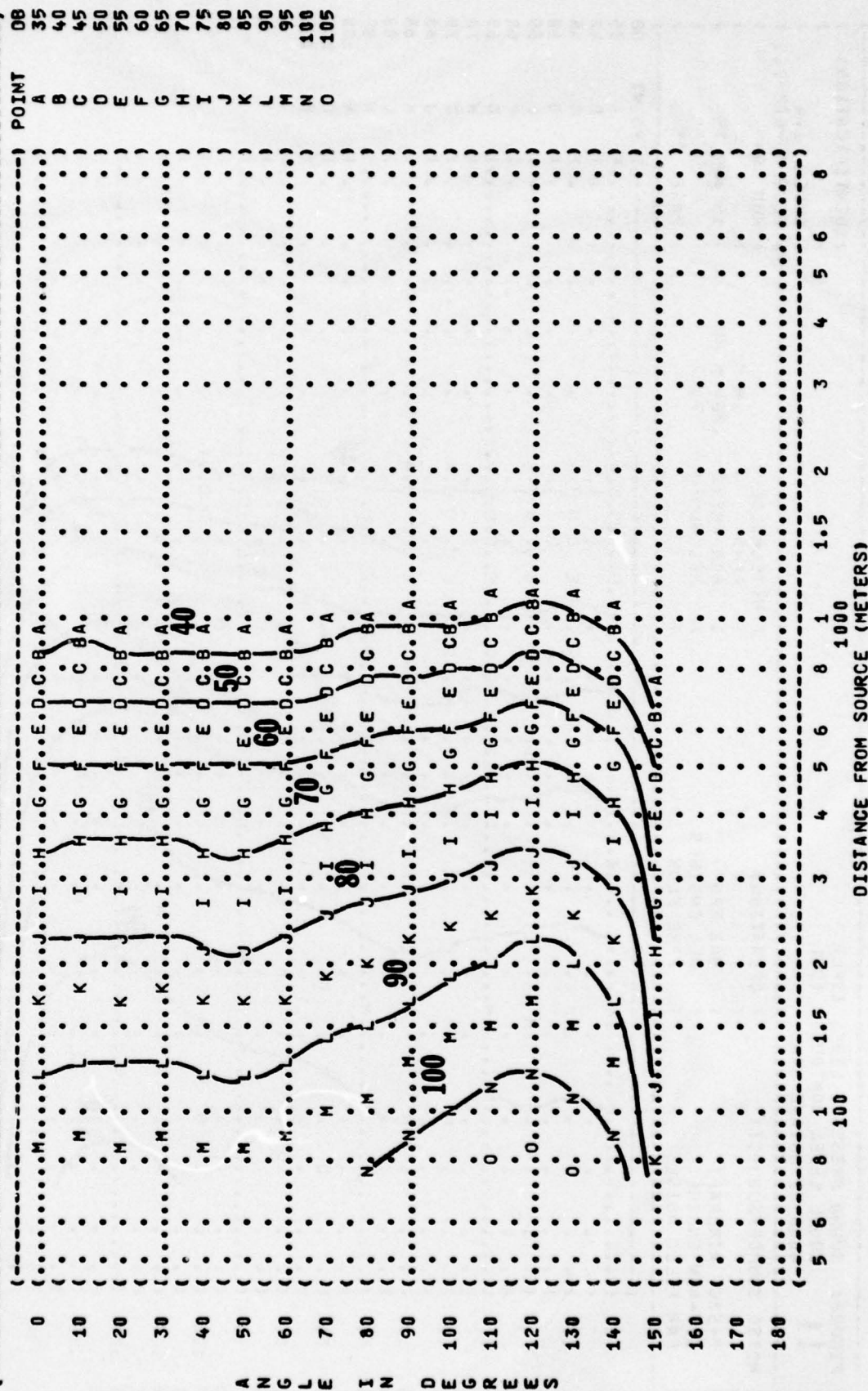
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

15 APR 75
PAGE 25

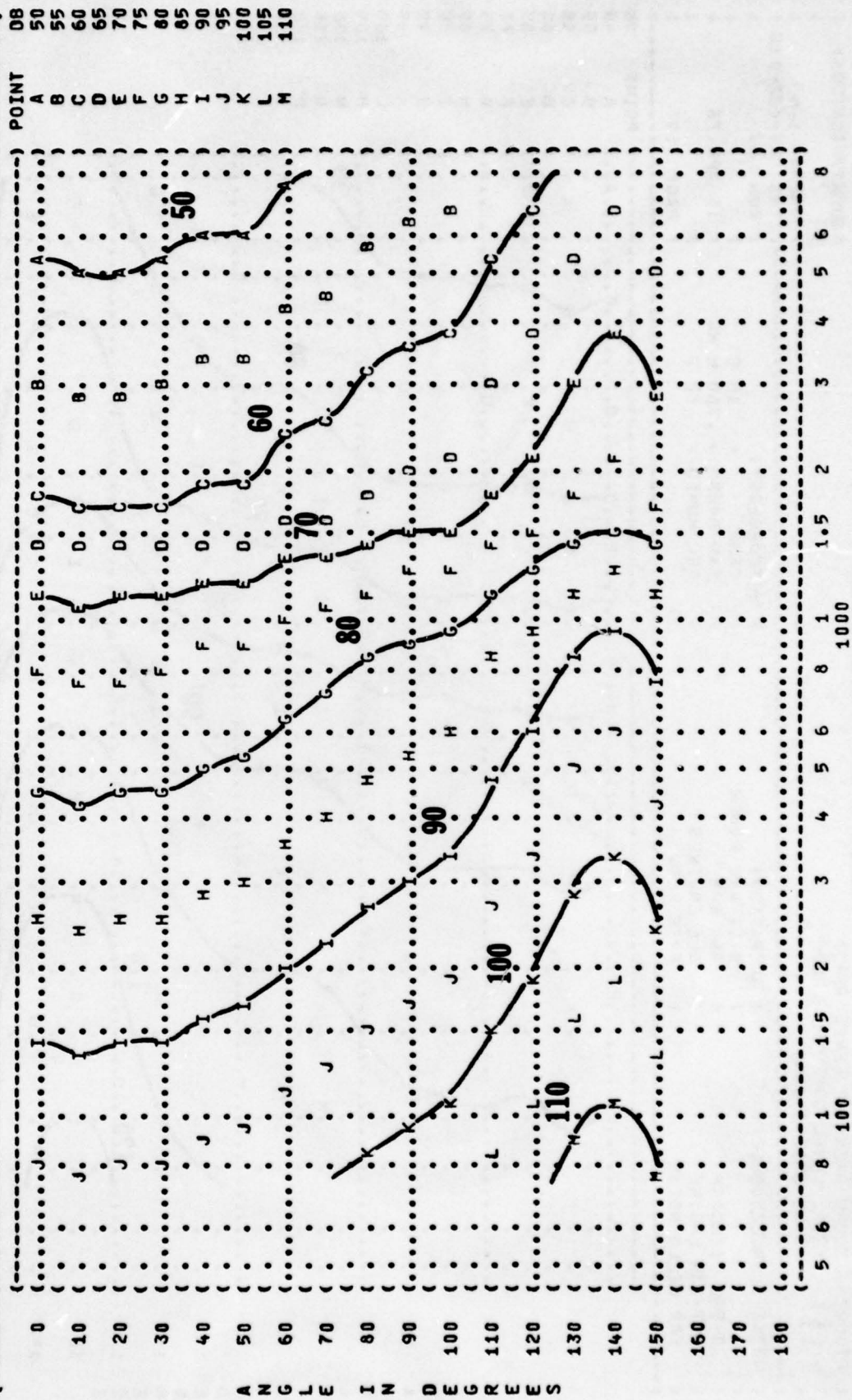


DISTANCE FROM SOURCE (METERS)

(FIGURE: SOUND PRESSURE LEVEL {SPL}
 (11 EQUAL LEVEL CONTOURS (DB)
 (8000 HZ OCTAVE BAND
 (NOISE SOURCE/SUBJECT: (OPERATION:
 (((((METEOROLOGY:
 (((((TEMP = 15 C
 (((((BAR PRESS = .760 M HG
 (((((REL HUMID = 70 %
 (((((RUN 04
 (((((TEST 75-002-010
 (((((OMEGA 1.4
 (((((IDENTIFICATION:
 (((((PAGE 26

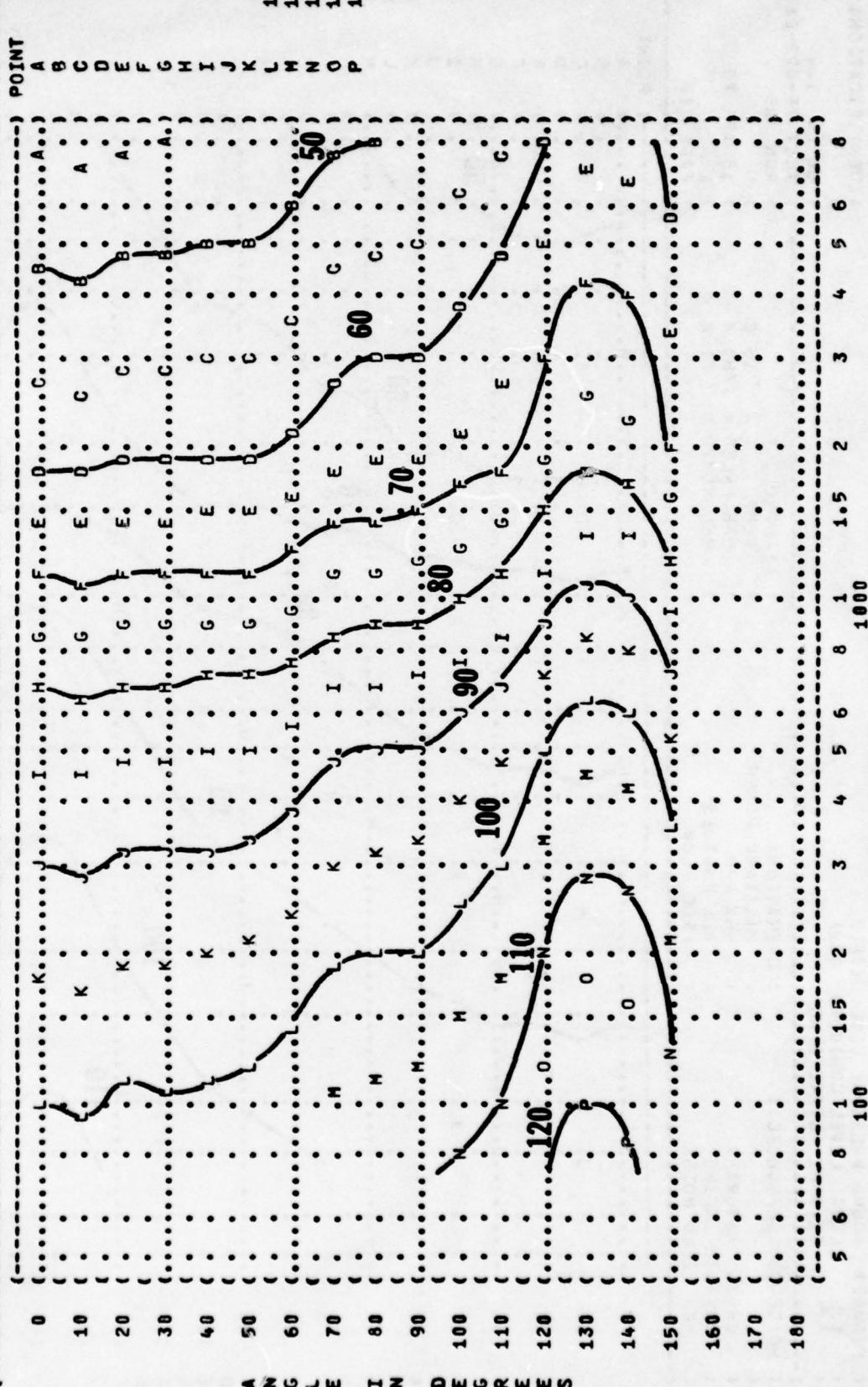


(FIGURE: SOUND PRESSURE LEVEL (SPL)
 (11 EQUAL LEVEL CONTOURS (DB)
 (31.5 HZ OCTAVE BAND
 (NOISE SOURCE/SUBJECT:
 ((OPERATIONS:
 ((MILITARY POWER
 ((94% RPM
 ((ALL ENGINES
 ((FREE FLOW
 (B-52G AIRCRAFT
 (J57-43W ENGINE
 (FAR FIELD NOISE
 (METEOROLOGY:
 (TEMP = 15 C
 (BAR PRESS = .760 M HG
 (REL HUMID = 70 %
 (IDENTIFICATION:
 (OMEGA 1.4
 (TEST 75-002-010
 (RUN 05
 (15 APR 75
 (PAGE 18



DISTANCE FROM SOURCE (METERS)

) RUN 05
)
) 15 APR 75
)
) PAGE 19



(FIGURE: SOUND PRESSURE LEVEL (SPL))
 (11 EQUAL LEVEL CONTOURS (DB))
 (125 HZ OCTAVE BAND)
 (NOISE SOURCE/SUBJECT:)
 ((OPERATION:)
 ((MILITARY POWER)
 ((94% RPM)
 ((ALL ENGINES)
 ((FREE FLOW)
 (B-52G AIRCRAFT)
 (J57-43M ENGINE)
 (FAR FIELD NOISE)
 (METEOROLOGY:)
 (TEMP = 15 C)
 (BAR PRESS = .760 M HG)
 (REL HUMID = 70 %)
 (IDENTIFICATION:)
 (OMEGA 1.4)
 (TEST 75-002-010)
 (RUN 05)
 (15 APR 75)
 (PAGE 20)

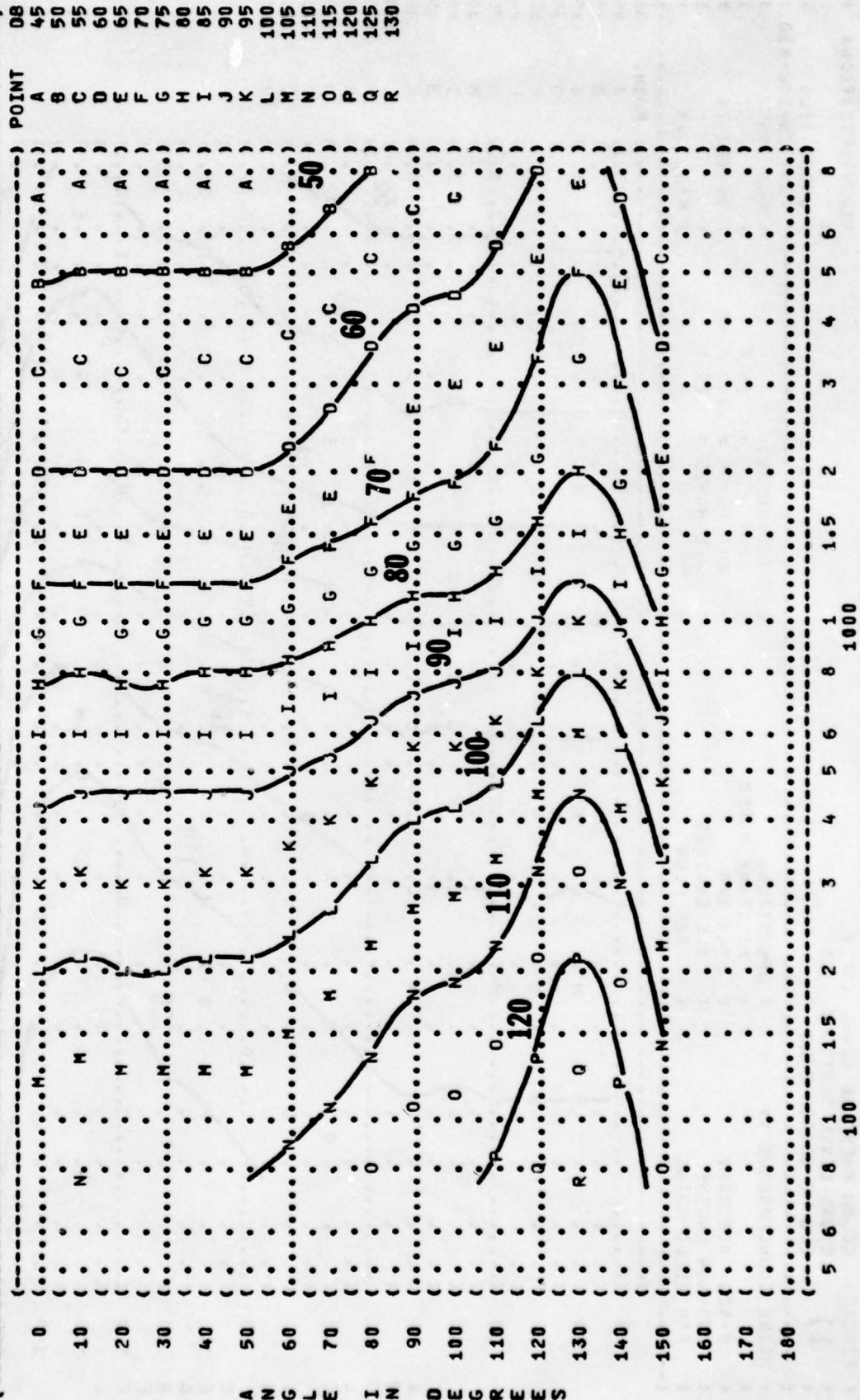
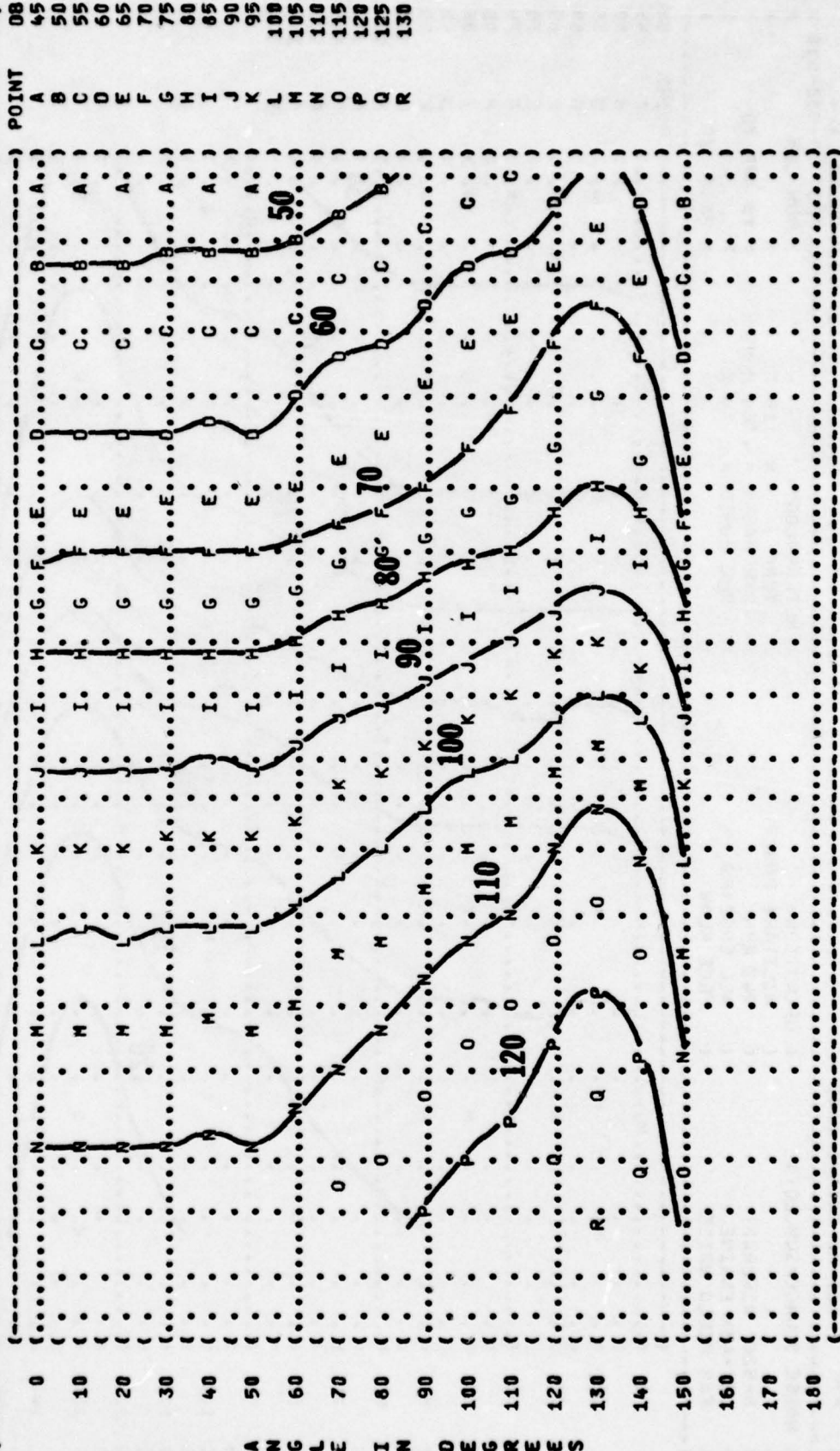
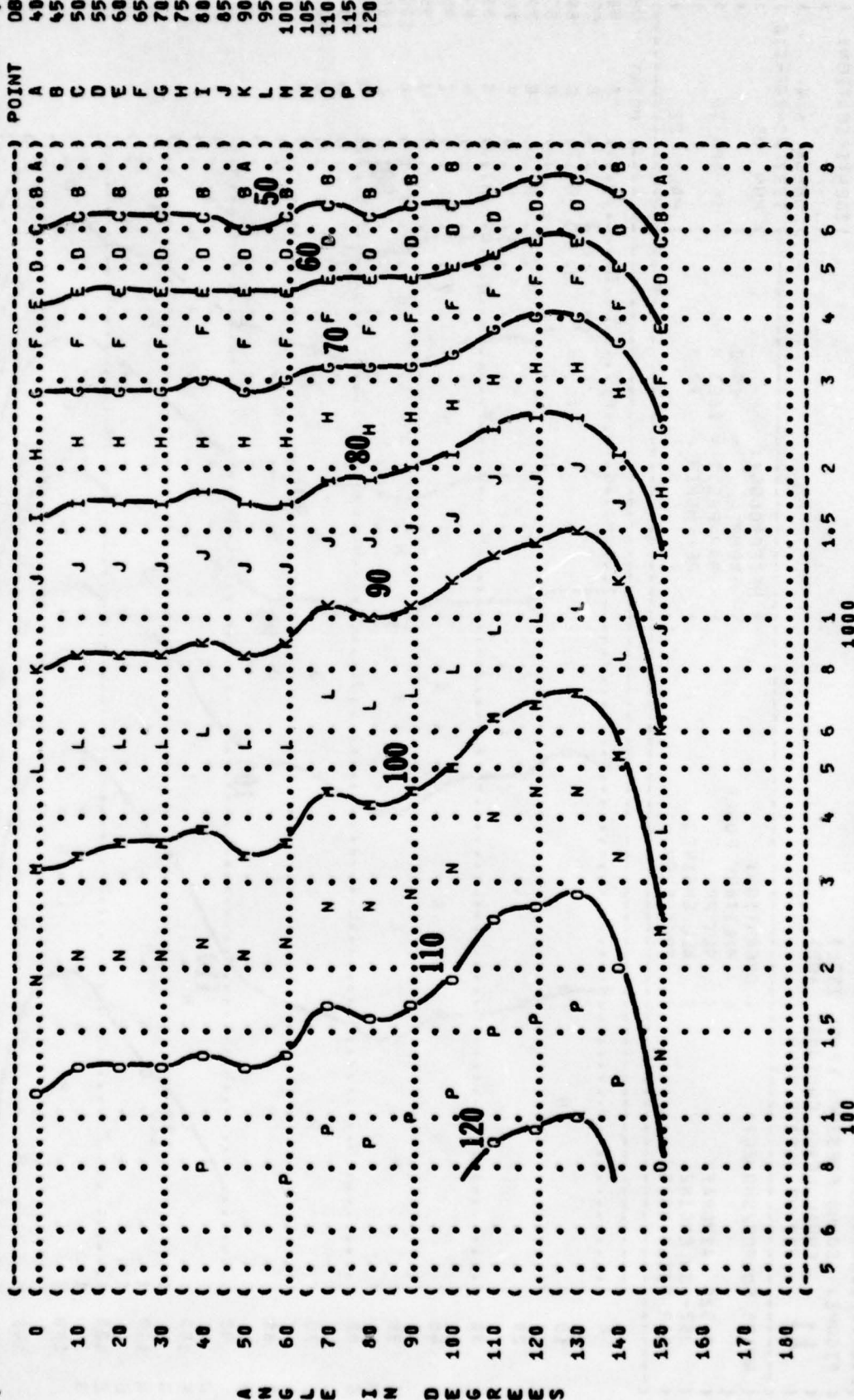


FIGURE: SOUND PRESSURE LEVEL (SPL)
 11 EQUAL LEVEL CONTOURS (DB)
 250 HZ OCTAVE BAND
 NOISE SOURCE/SUBJECT:
 OPERATION:
 8-52G AIRCRAFT
 J57-43M ENGINE
 FAR FIELD NOISE
 METEOROLOGY:
 TEMP = 15 C
 BAR PRESS = .760 M HG
 REL HUMID = 70 %
 IDENTIFICATION:
 OMEGA 1.4
 TEST 75-002-010
 RUN 05
 15 APR 75
 PAGE 21



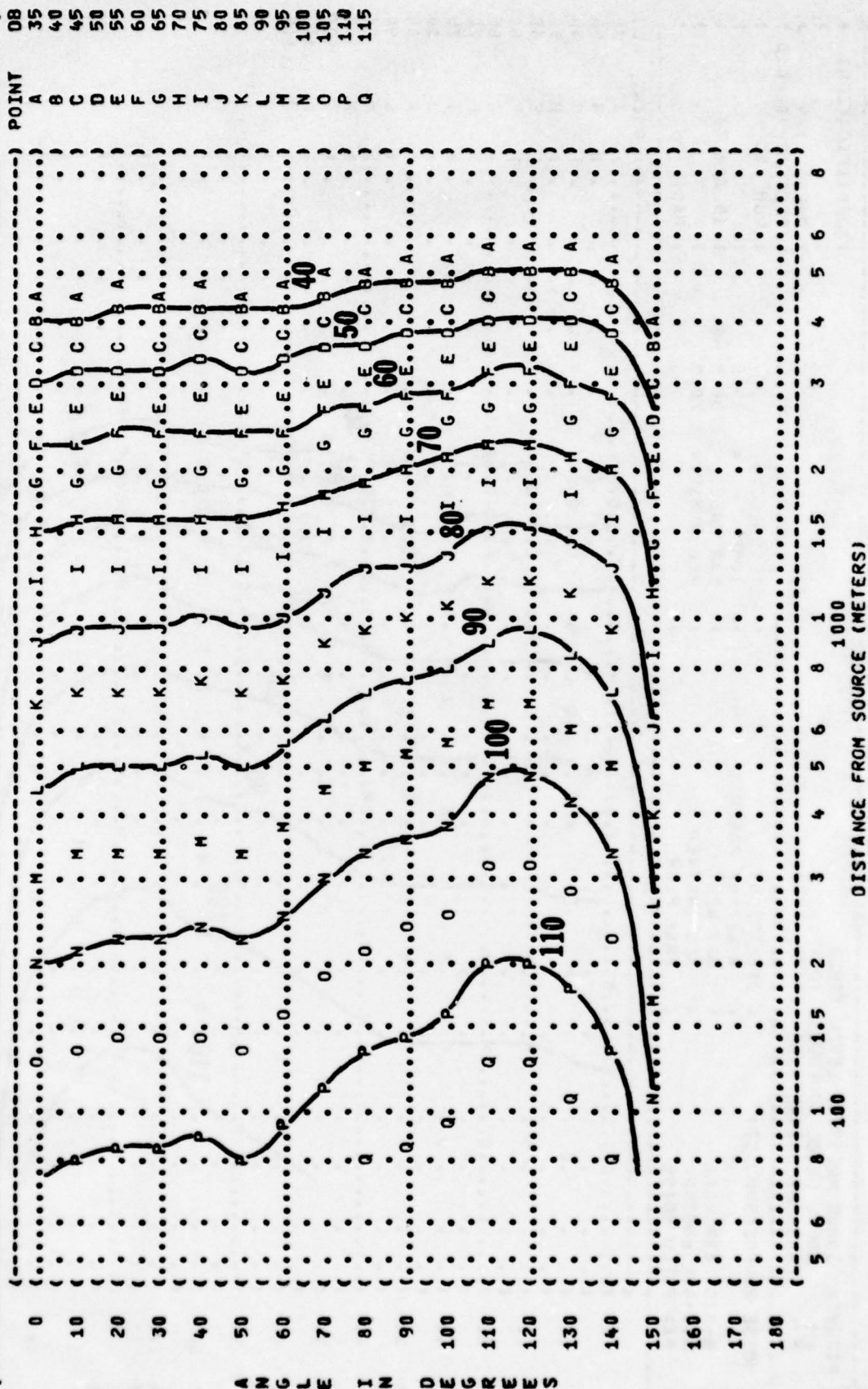
POINT DB
 A 45
 B 50
 C 55
 D 60
 E 65
 F 70
 G 75
 H 80
 I 85
 J 90
 K 95
 L 100
 M 105
 N 110
 O 115
 P 120
 Q 125
 R 130

(FIGURE: SOUND PRESSURE LEVEL (SPL))
 (11 EQUAL LEVEL CONTOURS (DB))
 (1000 HZ OCTAVE BAND)
 (NOISE SOURCE/SUBJECT:)
 (OPERATION:)
 (8-52G AIRCRAFT)
 (J57-43M ENGINE)
 (FAR FIELD NOISE)
 (MILITARY POWER)
 (94% RPM)
 (ALL ENGINES)
 (FREE FLOW)
 (METEOROLOGY:)
 (TEMP = 15 C)
 (BAR PRESS = .760 M HG)
 (REL HUMID = 70 %)
 (IDENTIFICATION:)
 (OMEGA 1.4)
 (TEST 75-002-010)
 (RUN 05)
 (15 APR 75)
 (PAGE 23)

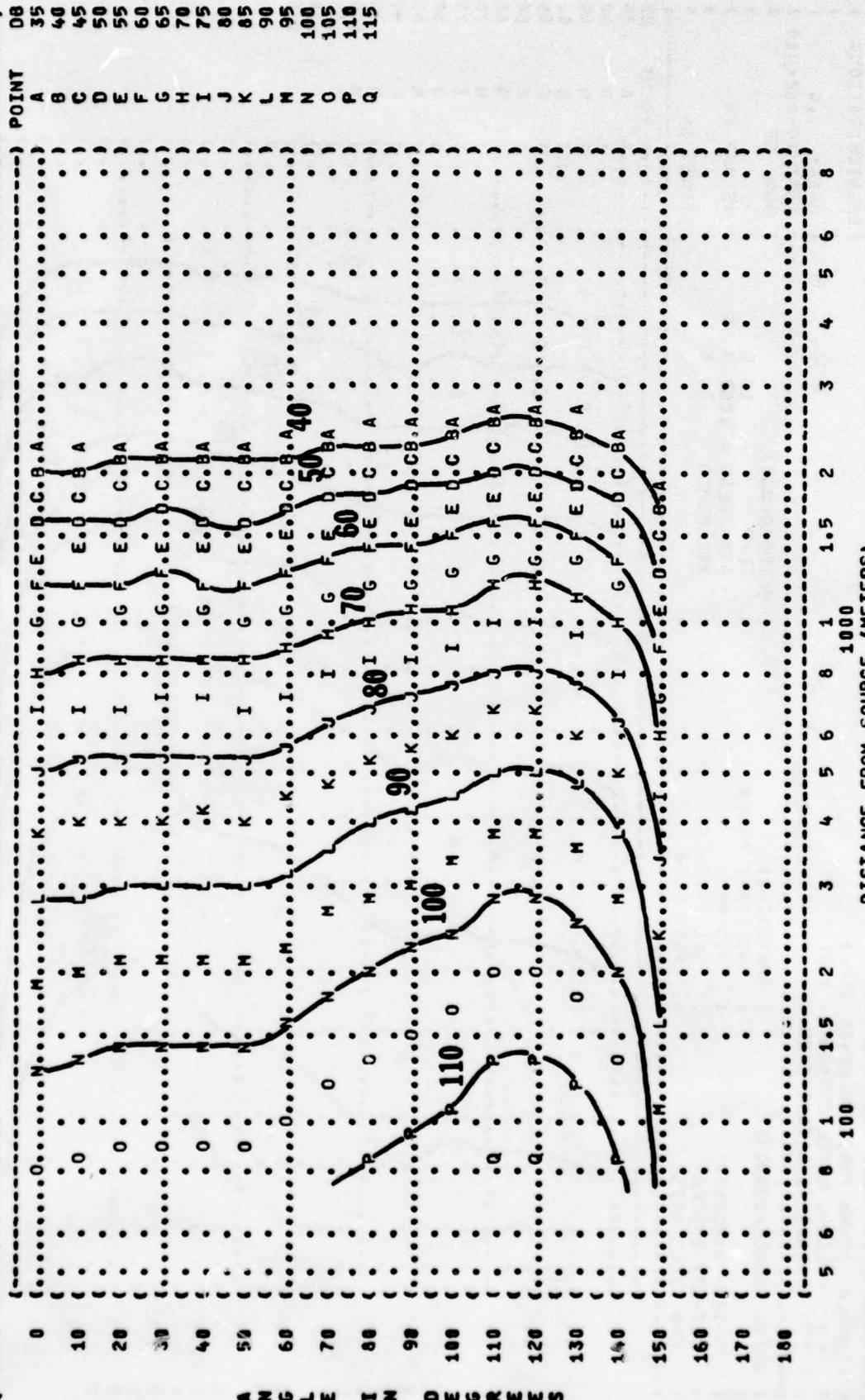


DISTANCE FROM SOURCE (METERS)

```
(-----)
( FIGURE: SOUND PRESSURE LEVEL {SPL} ) IDENTIFICATION: )
( 11 EQUAL LEVEL CONTOURS (DB) ) )
( 2000 HZ OCTAVE BAND ) OMEGA 1.4 )
( ) TEST 75-002-010 )
( NOISE SOURCE/SUBJECT: ) MEVEOROLOGY: ) RUN 05 )
( ) OPERATION: ) TEMP = 15 C ) )
( ) MILITARY POWER ) BAR PRESS = .760 M HG ) )
( ) 94% RPM ) REL HUMID = 70 % ) )
( ) ALL ENGINES ) ) )
( ) FREE FLOW ) PAGE 24 )
(-----)
```



(FIGURE: SOUND PRESSURE LEVEL (SPL)
 (11 EQUAL LEVEL CONTOURS (DB)
 (4000 HZ OCTAVE BAND
 (NOISE SOURCE/SUBJECT:
 ((OPERATION:
 ((MILITARY POWER
 ((94% RPM
 ((ALL ENGINES
 ((FREE FLOW
 (B-52G AIRCRAFT
 (J57-43M ENGINE
 (FAR FIELD NOISE
 (METEOROLOGY:
 (TEMP = 15 C
 (BAR PRESS = .760 M HG
 (REL HUMID = 70 %
 (IDENTIFICATION:
 (OMEGA 1.4
 (TEST 75-002-010
 (RUN 05
 (15 APR 75
 (PAGE 25



(FIGURE: SOUND PRESSURE LEVEL (SPL)
 (11 EQUAL LEVEL CONTOURS (DB)
 (8000 HZ OCTAVE BAND
 (NOISE SOURCE/SUBJECT:
 (OPERATION:
 (MILITARY POWER
 (94% RPM
 (ALL ENGINES
 (FREE FLOW
 (B-52G AIRCRAFT
 (J57-43M ENGINE
 (FAR FIELD NOISE
 (METEOROLOGY:
 (TEMP = 15 C
 (BAR PRESS = .760 M HG
 (REL HUMID = 70 %
 (IDENTIFICATION:
 (OMEGA 1.4
 (TEST 75-002-010
 (RUN 05
 (15 APR 75
 (PAGE 26

